RRs' 'Average' vs. Competitors' Best

July 11, 1960

## RAILWAY AGE weekly



Completing roof on mechanical car...



## PFE Expands Its Reefer Fleet

60 cents A Simmons-Boardman TIME-SAVER Publication



## SAVE WITH EXIDE-IRONCLAD BATTERIES



Here's why. The new, improved Exide-Ironclad tubular positive plate unlocks even more power per ounce of active material than in the past. You get more power per cubic inch of space and longer battery life.

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## RIBBONRAIL ... 20 years prove it's best

A RIBBONRAIL welding installation gives you one advantage no other continuous rail welding method can match—20 years of experience.

That means 20 years in which equipment has produced highest quality welds...costs continually lowered...more knowledge about the job and its problems accumulated...

And these are the advantages—in material and personnel—that mean lower costs and higher quality for you.

In fact, a LINDE representative can show that RIBBONRAIL welding gives better welds at less cost than any other method. Find out why LINDE—a lead-

ing manufacturer of electric welding equipment—uses oxyacetylene welding in its RIBBONRAIL service. Call your nearest LINDE office, or write Railroad Department, Linde Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N.Y. In Canada: Linde Company, Division of Union Carbide Canada Limited, Toronto.

RAILROAD LINDE UNION CARBIDE

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### "CTC means greater efficiency"

says Mr. Arthur Jansen, Railroad Security Analyst, W. E. Burnet & Company, New York, N.Y.



Portrait by Editta Sherma

"Prompt operating savings in the railroad industry can be found in greater efficiency. With dieselization virtually completed, the most promising areas appear to lie in the installation of modern classification yards and Centralized Traffic Control."

Mr. Jansen made this statement because he believes that CTC is the *practical* way for railroads to expand operations while reducing their operating costs.

Roads with CTC and automatic classification yards have reported a 30 to 40% return on their investment. Contact Union Switch & Signal for the latest facts on traffic control and classification yard systems.

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## Week Glance

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### Work rules arbitration rejected ......p. 9

The unions want the dispute referred to a "special wage structure commission" for study-but they don't want any such commission's findings to be binding. The carriers feel that they "just can't dissipate two or three years in a study that would not be binding and final."

### Cover Story—PFE expands its mechanical reefer fleet ......p.22

The company's Los Angeles shop is turning out five units a day to complete an order for 1,000 mechanical refrigerator cars. When the \$26,000,000 order is finished, PFE will own the country's largest fleet of mechanical reefers.

### Wheat traffic outlook good ......p.41

Despite adverse weather conditions that put the winter wheat harvest behind schedule, most traffic men are looking for substantial increases in grain loadings.

### Frisco must modify CofGa plan ......p.46

The ICC has refused to approve Frisco's plan for trusteeing its CofGa stock unless the trust agreement is changed to permit the trustee to sell the stock to any railroad offering to purchase it under terms found just and reasonable by the Commission.

### Industrial holidays cut RR forces ......p.47

Declining freight volume—caused partly by the practice, in some industries, of taking long summer holidays-has resulted in a spurt of railroad layoffs. PRR reports the biggest reduction-2,200 employees furloughed indefinitely.

### The Action Page—RRs' 'average' vs. competitors' best ......p.50

In most businesses competitors put forward their most attractive merchandise. It's different in transportation. More often than not, when railroads compete with other transport media, they are allowed to cite only their average performance, rather than the best of which they're capable.

### Short and Significant

### End of surface-mail airlift . . .

will be up to the Senate when Congress returns next month. Before adjournment for the national political conventions, the House passed a bill to end the Post Office Department's seven-year-old "experiment." The bill would prohibit air transportation of four-cent mail on routes where surface

堂



### CURVES

WHEN THEY SHORTEN TIE LIFE

Tie life on curves is extremely short when track spikes fail to hold gauge and underplate wood deteriorates. And this is bound to happen when moisture and abrasive materials get into the underplate area.

Bird Self-Sealing Tie Pads keep this vulnerable underplate and spike-hole wood dry — permanently. Moisture and abrasive materials cannot penetrate. There's no plate cutting. Spikes remain tight. Gauge holds.

Want proof? Send for interesting new booklet containing actual evidence based on over 20 years of in-track experience on tangent track, curves, bridges, and other critical areas.



In-track experience proves . . .

RD TIE PADS

\$1000.00 per mile per year

### Week at a Glance CONT

### Current Statistics

Operating revenues	
5 mos., 1960	\$4,064,090,155
5 mos., 1959	4,125,693,993
Operating expenses	
5 mos., 1960	3,195,545,311
5 mos., 1959	3,229,846,918
Taxes	
5 mos., 1960	450,170,907
5 mos., 1959	438,663,308
Net railway operation	ng income
5 mos., 1960	273,263,468
5 mos., 1959	324,315,344
Net income estimate	d
5 mos., 1960	195,000,000
5 mos., 1959	234,000,000
Average price railro	ad stocks
July 5, 1960	95.06
July 7, 1959	115.53
Carloadings, revenue	freight
25 wks., 1960	15,140,335
25 wks., 1959	15,694,286
Freight cars on orde	r
June 1, 1960	36,106
June 1, 1959	36,869
Freight cars delivere	d
5 mos., 1960	25,360
5 mos., 1959	14,322

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transportation facilities are adequate. The House action was a win for the railroads but a tough fight against favorable Senate action is expected to be made, especially by the Post Office and airlines.

### Decline of \$39 million in net income . . .

of Class I railroads is estimated by the AAR for 1960's first five months, compared with the corresponding 1959 period. The estimate puts this year's five-months' net at \$195 million, compared with \$234 million last year. May's estimated net, at \$47 million, was off \$25 million from May 1959's \$72 million. Twenty-nine Class I roads failed to earn their fixed charges in this year's first five months. Rate of return for the 12 months ended with May was 2.54%.

### President Eisenhower has signed into law . . .

the excise tax act which continues the present 10% tax on passenger fares. The act also extends for another year the corporate income tax rate of 52%.

### North American Car's NITX pool . . .

has signed up two additional members-Milwaukee and Lackawanna. The specialized car pool, formed last December, now numbers nine member roads and "discussions are in progress with several other potential members."

### The 30-day cooling off period . . .

following submission of emergency board recommendations in the non-ops' wage-benefit case expired last week as carrier and union negotiators continued discussion of the issues. Meanwhile, emergency boards worked toward submission of recommendations in two other cases—the wage dispute between the carriers and the SUNA; and the dispute involving train radio and other issues between Santa Fe (Coast Lines) and the BLE. Reports in both cases are expected about July 15.

### New York Central's offer . . .

to acquire stock control of the Baltimore & Ohio will be considered at the regular meeting of B&O directors July 20. NYC is offering a stock-and-cash package worth \$42.50 for each share of B&O common (RA, July 4, p. 9).

#### SAL and ACL stockholders . . .

will vote on the proposed merger of the two roads at special meetings in Richmond, Va., Aug. 18, according to proxy material mailed last week. Directors approved the merger plan May 19. The new company would be called the Seaboard Coast Line.



Standard's Bill Barr (second from right) talks over railroad lubrication yesterday and today with (I. to r.) Messrs. Quirin, Williams and McAlpine of the Burlington.

### Bill Barr's business is to help the busy Burlington

When the Burlington put the new SD-24's into service . Pioneer Zephyr on its history-making non-stop in June, 1959, Bill Barr was on the job providing technical service on lubrication. This is old stuff for Bill. He's been helping the Burlington for 19 years. And he has more than 30 years' experience on diesel lubrication, plus an engineering degree from Louisiana University to qualify him for this work.

Although Bill Barr wasn't there when the Burlington's first diesel went into service in 1934, Standard Oil was. Standard diesel lubricants were used in the famous

Denver-Chicago run 26 years ago. Standard products were still in use in this train when it was removed from active service and placed on public exhibition in early 1960.

The kind of skilled technical service Bill Barr renders the Burlington and the experienced service Standard Oil provides railroads are yours simply by calling Railway Sales Department, Standard Oil Company (Indiana), 910 South Michigan Ave., Chicago 80, Illinois.

You expect more from (STANDARD) and you get it!



## Work Rules Arbitration Rejected

► The Story at a Glance: Railway management and the big four operating brotherhoods hoarded their fireworks until July 6. Then, in rapid-fire order:

• The organizations proposed creation of a tripartite "special wage structure commission" to consider and make recommendations on the work rules issue and "such other proposals as either party may desire to submit."

 Management representatives quickly found this wide-ranging proposition unacceptable and proposed instead that any commission studying rules be empowered to make its findings binding on both sides.

 The unions, reacting with equal vigor, called the carriers' objections "not well taken"—and then rejected binding arbitration of the rules dispute at issue.

The outlook, after the smoke had cleared: Carrier proposals for rules revision and union counter-proposals, if any, will be progressed through the machinery set up by the Railway Labor Act.

For the third time in 17 months, revision of railroad work rules has been nudged in the direction of a "study commission." But unless the carriers and the brotherhoods find a greater area of agreement than they've found thus far—or unless strong outside pressures are exerted—the third time around may have killed off the idea for good.

Basically, the present dispute-withina-dispute is this:

 The four organizations—the BLE, BLF&E, BRT and ORC&B—want a study commission (a) with labor representation; (b) with only the power to recommend; and (c) with no restrictions on the field of inquiry.

• The carriers will agree to creation of a commission (a) with power to make its findings binding; and (b) with the area of investigation limited to the rules notices of last Nov. 2, plus specific bargainable counter-proposals which the brotherhoods may want to make.

Carrier spokesmen noted that in February 1959 the railroads actively sought creation of a presidential commission to make a "fair and objective" study of the problems facing the industry, among them the rules question. But, they said, the organizations opposed the move and took a position that procedures set up by the Railway Labor

Act should be followed in settling the dispute.

The organizations' July 6 letter to the carriers, however, contends that the carrier rules proposal "necessarily involves a comprehensive review of the entire wage structure, to which the ordinary processes of the Railway Labor Act are not suited. We believe that such a review, if it is to be made, calls for the creation of a special wage structure study commission."

The commission which the unions propose would operate entirely outside the Act. It would be neither arbitration board nor emergency board; it would adopt certain features of each while rejecting others.

 Like an arbitration board, the commission would have carrier, union and public representation—but its findings would not be binding on either side.

• Like an emergency board, it would be empowered only to study and

recommend—but its make-up would be tripartite rather than all neutral or public in nature.

As proposed by the organizations, the commission would be "authorized to consider changes requested in your [carrier] notices of Nov. 2, 1959, and such other proposals as either party may desire to submit." Thus far, the brotherhoods have made no counterdemands, although union officers have hinted at possible proposals involving such benefits as away-from-home pay and differentials for night, Sunday and holiday work. But the unrestricted scope of the proposed commission inquiry could lead to revival of the suggestion made by the unions in February 1959, when they rejected AAR President Daniel P. Loomis' presidential commission bid. The union suggestion at that time: Any inquiry should include "a complete study of the financial structure of the industry . . . management practices which adversely affect the

### Management's Program to Cut Waste

Proposed work rule revisions, contained in Section 6 notices served last Nov. 2, have these objectives:

- To revise the historic pay standard for engine and train crews to reflect today's operating conditions. Provisions which give passenger enginemen and through freight enginemen and trainmen a basic day's pay for covering 100 miles would be adjusted to allow runs of 160 miles for a full day's pay. Passenger trainmen's provisions would be adjusted correspondingly. Spreadthe-work rules which limit mileage run by operating employees would be eliminated.
- To eliminate rules barring crews from running through present crew-change points.
- To eliminate "arbitrary" lines drawn between work which may be performed by road and yard crews.
- To establish the right for management to determine when firemen are to be used on other-than-steam power in freight and yard service.
- To eliminate rules stipulating the number of crew members required and give management the right to determine when and where to use trainmen, conductors, engineers and others.
- To end rules requiring standby operating employees when self-propelled equipment is used in track maintenance, repair or inspection.

Objective of the overall program: "A fair day's work for a fair day's pay."

soundness of this important public service . . . all phases and facets of the industry."

James A. Paddock, president of the ORC&B, estimated that the study envisioned by the organizations would take "at least a year," perhaps longer. The carriers, however, think two years would be consumed by fact-finding, after which the parties would re-enter negotiations-and "the unions would be free to reject any and all recommendations." Instead of two years, as the railroads see it, five years might easily slip past before any accomplishments could be reported, and "in view of the critical financial situation . . . we just can't dissipate two or three years in a study that would not be binding and final."

Consequently, said J. E. Wolfe, CB&Q vice president—personnel and spokesman for the carriers, "We must process our Section 6 notices according to the provisions of the Railway Labor Act."

Such processing will involve negotiations at the national level, and in all probability will stretch the settlement procedures of the Act to the limit through mediation, the proffer of arbitration and, finally, emergency board consideration.

Both management and labor now say they want to move ahead with all possible vigor. But, union chiefs indicated, it may take them another month or two—to get authority from local lodges to negotiate nationally and appoint committees—before they'll be ready to begin conference committee talks.

After that, progress through procedures under the Act could take seven or eight months, by Mr. Paddock's estimate. And, he hinted, unless a "detailed study" is made, it's likely that the "recommendations of any board [would be] so indecisive as to make it impossible for us to accept."

The ORC&B chief term ed the union proposal "a practical solution to a very grave problem." He called the carriers' alternative proposal "an impossibility." Mr. Paddock and Roy E. Davidson,

Mr. Paddock and Roy E. Davidson, of the BLE; H. E. Gilbert, of the BLF&E; and W. P. Kennedy, of the BRT, met with carrier representatives

for about an hour to present the commission proposal. Industry negotiators rebuffed it after brief consideration and charged that the proposal was made "for only one purpose—delay."

The carrier spokesman added: "We sincerely trust that the unions will meet us on a realistic basis and cooperate with the carrier representatives in disposing of these problems in the interest of all concerned, especially the public.

"Conference committees will meet at the national level to pursue negotiations."

Mr. Paddock termed the carriers' non-acceptance of the union commission plan "against the public interest."

"Undoubtedly," he added, "we'll end up with crisis down the line." He left little or no hope that the unions would accept arbitration on the rules question.

(The four organizations, representing more than 200,000 employees, have already settled their wage disputes with the carriers. In each case, the settlement was based on a two-stage, 4% increase pattern established by a binding arbitration award in the BLE case.)

### Watching Washington with Walter Taft

• THIS YEAR'S CAPITAL OUTLAYS of Class I line-haul railroads are now expected to exceed \$928 million—up about 13½% from 1959's gross capital expenditures of \$818 million. That's indicated by reports of first-quarter expenditures and estimates for the other three quarters which have been filed with the ICC.

THE REPORTS for the first quarter were filed by all 112 Class I line-haul roads. Estimates for the last three quarters were submitted by 106 roads.

THE ESTIMATES indicate that the year's total expenditures will be bigger than had been anticipated in preliminary forecasts made shortly after the year got under way. Then, the prospective 1960 expenditures were put at \$859.2 million.

TWO-THIRDS of the 1960 expenditures are expected to be made for equipment. That would be a smaller proportion of the total outlays than equipment got in 1959, when its share was 69.4%. The estimates, on dollar bases, are that 1960 expenditures will break down to \$612.7 million for equipment and \$315.3 for road. Comparable 1959 figures were \$567.5 million and \$250.5 million, respectively.

• ANOTHER TRANSPORT REPORT has come from the Department of Commerce. It's supplemental to the report which Secretary of Commerce Mueller made to President Eisenhower last March. It makes

no different recommendations, but spells out in some detail the reasoning of the staff which worked on the Mueller study.

THE STAFF DIRECTOR, Ernest W. Williams, Jr., and Davide W. Bluestone are authors of the 71-page report, called "Rationale of Federal Transportation Policy." Dr. Williams emphasizes that the authors speak for themselves only—so their report should not be attributed to Secretary Mueller or the Department. It is nevertheless a government publication, available from the Superintendent of Documents at 30 cents per copy.

THE MUELLER REPORT which it supplements made 78 recommendations, many of them controversial. They included calls for more carrier rate-making freedom, establishment of a federal agency to plan and schedule government expenditures for transport facilities, and user charges on publicly-provided facilities (RA, March 21, p. 31).

PIGGYBACKING still concerns American Trucking Associations. The Associations' executive committee has continued the special committee it created sometime ago to study developments in that field. A major new item on the special committee's agenda is the ICC's refusal to reconsider its precedent-setting decision of 1954. That decision upheld railroad positions on legal questions and other issues raised by piggyback operations.



... where railroad progress is cast in steel

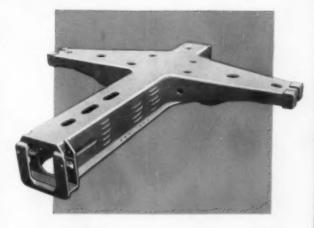
# PFE chooses General Steel Underframe Ends For Mechanical Reefers



The great investment in mechanical refrigerator cars and the high annual mileage traveled by this type car demand the best possible underframe construction.

That's why, for their new cars, Pacific Fruit Express specified 1,900 underframe end castings from General Steel. PFE recognizes the value of General Steel's underframe end which combines in one casting—the body bolster, center filler, center plate, draft gear stops, striker, coupler carrier pocket and side bearing pads.

General Steel puts the strength where it's needed most ... in the critical body bolster-center sill area ... to overcome the cause of underframe failures. Accepted advantages are: longer car life, lower maintenance costs, maximum car availability and resistance to rust and corrosion.



GENERAL STEEL CASTINGS



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### "How much is enough for advertising?"

JOHN R. SARGENT, partner in the nationally-known management consultant firm of Cresap, McCormick and Paget, points the way toward solution of one of top management's knottiest problems.

"Good sales management generally knows the crucial sales problems faced by each one of its products. Through good advertising advice plus experience, trial and error, and some judicious advertising testing, sales management also can come to have a good understanding of what advertising can and cannot do.

"At the same time, sales management should be sure to take a careful look at what each of the other sales producing factors are supposed to be doing.

"If all these elements of the sales plan are carefully evaluated, and the key assumptions are checked regularly, you're off to a strong start in making sure that your advertising appropriations are neither so high as to be wasteful, nor so low as to penalize your marketing effort."





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### FROM GENERAL ELECTRIC

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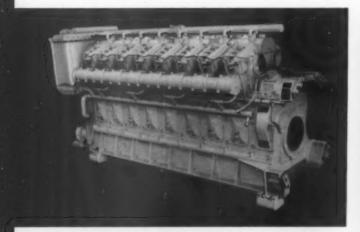
For U25B Features that Make Possible New Levels of Mainline Performance, Turn to the Following Pages



### NEW GENERAL ELECTRIC U25B MAINLINE LOCOMOTIVE

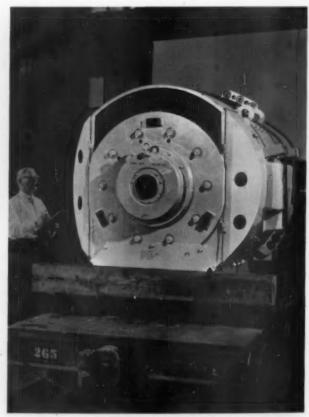
## first all-new diesel-electric locomotive in 15 years

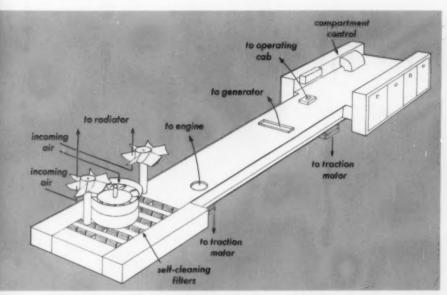
... a carefully integrated design to meet the requirements of a new era of fast freight rail-roading, greater railroad competitiveness and profitability. More power — 50% greater than average mainline diesel-electric locomotives — enables the U25B to move freight faster. Rugged simplicity — 60% fewer electrical components, simplified mechanical design — establishes new standards of locomotive reliability and reduced maintenance. Clean air — through self-cleaning mechanical filters — reduces both cleaning costs and mechanical wear. The power, simplicity and cleanliness of the U25B offer significant savings in operating costs. With new G-E U25B locomotives, you can plan for maximum return on your equipment investment.



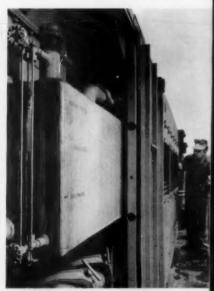
MORE POWER IN THE DIESEL ENGINE — twenty-five hundred horsepower — gives the new General Electric U25B diesel-electric locomotive 50% greater power than average diesel-electric units now in mainline service. And, the U25B has ample capacity to meet the challenges of tomorrow's faster traffic schedules, or to maintain your present schedules with fewer units.

NEW MAIN GENERATOR HAS AMPLE CAPACITY, meets peak load requirements with generous safety margin, is specifically designed for the high-powered General Electric U25B locomotive. New insulation system gives maximum protection against heat and moisture, adds another element of reliability to this General Electric locomotive.





NEW FILTERED AIR SYSTEM on the U25B — a major advance in locomotive design — assures longer apparatus life, greater reliability, lower cleaning costs. All air (except for radiators and dynamic brake) is supplied by one blower through self-cleaning mechanical filters.



NEW ENGINE COOLING SYSTEM on the G-E U25B locomotive eliminates all electrical devices and radiator shutters.



POWERFUL GE-752 TRACTION MOTOR
—proved by millions of miles on high-powered
diesel-electric, gas-turbine-electric and straight
electric locomotives — assures rugged dependability, capability of continuous ratings exceeding 700 horsepower—another G-E added value.



NEW ADHESION LOSS DETECTOR fast responding, the most effective automatic slip detection and correction method available—detects slips and slides at all speeds, corrects slip by a light application of independent air brakes before damage occurs.



NEW PRESSURIZED CONTROL compartment houses rugged, heavy duty components—seals out dirt and moisture, virtually eliminates routine maintenance. Compartment on the new U25B locomotive invites white glove inspection.

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1895 First Mainline
Electric Locomotive



1924 First Diesel-Electric Locomotive



1956 Universal Diesel-Electric Export Locomotive



1957 Rectifier-type Freight Locomotive



1958 8500-hp Gas-Turbine-Electric Locomotive

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Since 1890, General Electric has worked in partnership with the railroads to develop pioneering and continuing advancements in motive power. Seven years ago, the American railroad industry helped General Electric plan a new locomotive concept. The industry asked for a new locomotive . . . with greater horsepower . . . on four axles . . . reliable and economical to operate . . . and of simple design. Based on these present and future railroad needs, G-E engineers developed a new locomotive, combining a new, integrated approach with proven components.

#### THE GENERAL ELECTRIC U25B IS THAT LOCOMOTIVE

For further information about the new U25B, contact your General Electric Apparatus Sales Office or Locomotive and Car Equipment Department, General Electric Company, 2901 East Lake Road, Erie, Pennsylvania.

Progress Is Our Most Important Product



## What's Your 'Award Quotient?'

How well do you understand awards under the Railway Labor Act? If it were your responsibility to review decisions reached in the investigations summarized at the right and on subsequent pages, would you sustain or deny an appeal? Check your reaction against that of the carrier officer who actually conducted the investigation—and against what happened later when the case was appealed to the National Railroad Adjustment Board.

These are actual cases and decisions, as reported by I. L. Fardel, Soo Line Division Superintendent, in his new edition of Manual of Investigation and Discipline Procedures. (Copies are available from Mr. Fardel, 1308 Wisconsin Ave., Gladstone, Mich., at \$3.00).

Cases referred to the National Railroad Adjustment Board are intended to be disputes growing out of grievances or interpretation or application of agreements concerning rates of pay, rules or working conditions. Although no penalty is provided for failure to comply with an award (except that rail carriers who do not comply may be sued in Federal District Courts), NRAB decisions are binding.

NRAB is, in effect, an industrial court composed of four distinct divisions: Division 1 covering train and yard service employees; Division 2 shop craft employees; Division 3 station, tower and telegraph employees, signalmen, clerks, freight handlers, express, station and store employees, m/w workers and sleeping car conductors, porters, maids and dining car employees; and Division 4 marine employees and others. The Board consists of 36 members, 18 selected by the carriers and 18 by labor organizations.

To test your skill in investigations, read the cases here and mark down in the box provided whether you think the decision would be sustained or denied. Then turn to p. 29 to check answers.

A forum for railroaders who want to explore questions of importance to their industry, this column welcomes questions and answers from readers at all levels of responsibility in the industry and associated fields. We'll pay \$10 to any reader submitting a question that forms the basis for a column discussion. Address correspondence to: Question and Answer Editor, Railway Age, 30 Church St., New York 7, N.Y.

In a case involving discipline, an investigation was begun but only partially completed. The employee involved admitted his guilt and the investigation was dropped. When the employee was later suspended, the case was appealed to the NRAB. The railroad involved contended that a full investigation was not required because the employee had admitted his violation of rules. The employee's representative contended that his right under the agreement between his organization and the railroad to a fair and impartial investigation had been violated and that the suspension should be set aside.

A fireman accepted a call for work, but his engineer refused to work with him, saying that he thought the fireman was under the influence of alcohol. The engineer called the assistant road foreman to decide the matter. The assistant road foreman told the fireman to go to the roundhouse and mark off. This the fireman refused to do, saying to the assistant road foreman, "I quit." Later, the carrier notified the fireman, in writing, that his resignation was accepted. The fireman's representative filed a claim with NRAB on the grounds that his verbal statement was not a formal resignation.

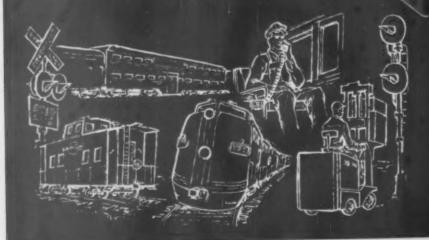
A flagman employed by Railroad X was at work on a train of his road operating on Railroad Y under trackage rights. Charges were brought against the flagman that he had violated Railroad Y's rules, and an investigation was held by officers of Railroad Y. On the record of the Railroad Y investigation, the flagman was dismissed by Railroad X. His representative filed a claim with NRAB on the grounds the flagman had not been investigated by officers of his own road as the agreement between his organization and the carrier required.

A fireman was convicted in criminal court of two charges of burglary. He was sentenced to two years imprisonment on each count, but the sentence was suspended and he was placed on probation. Later he was found guilty of another charge of burglary and was sentenced to a 6-month term in jail. The carrier served notice on the fireman, in prison, that a hearing would be held on his conduct. The hearing was held while the fireman was still in jail, and the fireman was dismissed from railroad service. The fireman's representative filed a claim on the grounds that the fireman had been physically unable to attend the hear-

(Continued on page 24)

INTRODUCING

INCREASE RAILROAD EFFICIENCY REDUCE RAILROAD COSTS



## NEW EDISON Dynaclad

for Diesel Engine Starting



Costs go down with the most advanced lead-acid battery for railroad diesel service on the market today! Designed with years-ahead features, EDISON Dynaclad is made for dependable starting. Its unique, truly superior positive plate construction assures outstanding performance...far longer life. Quality — the hallmark of products from EDISON — is built right into Dynaclad.

## NEW EDISON Nickel-Cadmium

for Communications, Car Lighting Emergency Power Systems Signal Equipment



Specifically engineered for low temperature applications, this great new alkaline battery has the famous Edison Original Tubular Positive Plate. The negative plate contains new, highly improved cadmium active material...covered by U.S. Patent No. 2,727,080. The result: the first tubular-positive, pocket-cadmium battery capable of longer life under deep-cycle operation!

### FAMOUS QUALITY EDISON Nickel-Iron

for Communications, Car Lighting, Air Conditioning Multiple Unit Controls Signal Equipment Industrial Trucks & Tractors



Famous for over 50 years as the longest-lived, most dependable storage battery, the Edison Nickel-Iron Battery now contains new patented active material. Proved in the field, today's Edison Nickel-Iron Battery offers even longer life and greater-than-ever protection against the rigors of railroad service.

## EDISON THE FIRST MAJOR MANUFACTURER TO OFFER RAILROADS A FAMILY OF BATTERIES Be Sure to See These Great New Batteries...learn about

what they mean to you in terms of increased efficiency and lower costs.

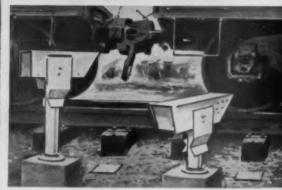
In Canada: CLM Industries
Division of McGraw-Edison (Canada) Ltd.
Toronto 13, Ontario

Storage Battery Division
Thomas A. Edison Industries
West Orange, New Jersey, U.S.A.





HOT-BOX DETECTORS



SCANNERS are of horizontal or track-level type (the latter mount on either tie or concrete pad).

# Spot overheating journals early ... save up to \$300 per axle

One Eastern railroad figures that each potential hot box spotted soon enough saves the cost of a wheel change—up to \$300 per axle. General Electric hot-box detectors can help you effect comparable savings by finding "beginning-to-heat" journals in time to repack and avoid wheel change. Early detection is one way the General Electric system can save you money. Here are others:

Reliable performance has been a strict design objective with General Electric hot-box detectors. Operating dependability stems from . . .

 Accurate detection at train speeds from 7 to 70 mph, at ambient temperatures from -40 to 125F.

 Designed to railroad requirements—rugged allweather construction, high resistance to dirt, corrosion, vibration, or impact.

 Sensitive scanner does not confuse hot boxes with heating brakes, or other extraneous heat.

 Frequency Modulated (FM) Carrier Current transmits clear signal over long distance; not affected by static which can distort AM carrier systems.

Axle counter and alarm quickly alerts your operator to hot box, tells him where it is located.

Transistorized construction contributes to reliability, superior performance, small size.

One-day installation is normal for the General Electric system because . . .

· All system units come independently housed,

requiring only mounting and interconnections.

· Scanners mount quickly.

• System connects to 110-V trackside power.

· Built-in test circuitry speeds check-out.

· Tools provided for easy alignment.

Minimum maintenance—normally restricted to cleaning scanner lens and checking alignment for trouble-free service. If necessary, component change is easy because of ready access to unitized sub-assemblies. System needs only a nominal spare parts inventory, which is backed by complete factory repair service.

Extra values—Only General Electric offers this complete hot-box detector "package"—a product with the accuracy and ruggedness to meet high railroad standards . . . backed by a nationwide sales and service organization including . . .

• Experienced G-E Application Engineers to help

you plan your system.

 General Electric Service Engineers to get your system off to correct start, with complete initial system checkout.

 Factory training to teach your operating people to install, operate, and maintain the system.

We'd like to tell you more about the savings you can make and discuss other benefits the General Electric system can offer. Call your nearby G-E Sales Engineer, or write for Bulletin GEA-6950, to Section 793-03, General Electric Co., Schenectady, N. Y. Specialty Control Dept., Waynesboro, Va.

## GENERAL

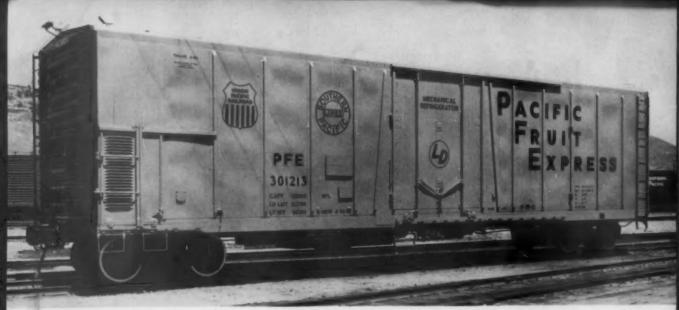




AXLE COUNTER AND ALARM alerts operator to faulty journal, spots it for him with accurate axle count.



110-V POWER at trackside is all the General Electric system needs. The detector uses a low 200 watts power.



HIGH CAPACITY and ability to handle merchandise loads on their westbound trips are features making latest PFE

cars attractive. Structural ribs on car exteriors made installation of insulation easier.

## PFE Is Expanding Its Reefer

This country's largest fleet of mechanical refrigerator cars will be owned by Pacific Fruit Express when the 1,000 cars being built at the PFE Los Angeles shop are completed.

The 50-ft all-purpose cars, costing \$26,000,000, are being turned out at a five-per-day rate. Production will continue until late this year. When the last of these cars goes into service, PFE will be operating more than 2,700 mechanical refrigerator cars.

Light weight of each new car is 86,300 lb; cubic capacity, 3,174 cu ft; load limit, 122,700 lb. Lading temperatures can be held at any setting between -10 and +70 deg F.

The cars are designed to handle not only frozen foods, but also heavy "incentive" shipments of fresh fruits and vegetables, and large loads of canned goods, wine, and nursery stock. To minimize empty mileage, the cars are also designed to handle westbound general merchandise traffic.

#### Semi-Envelope

The car body is a semi-envelope design with circulation of refrigerated air in channels around the lading space, along with a controlled volume which passes from ceiling vents directly down through the load. Dividers, or compartmentizers, protect ladings and make possible the partial unloading of

cars at stop-off points en route.

Car underframes are welded assemblies which incorporate cast-steel end underframe units. Both underframes and side assemblies were supplied to PFE ready for use on the production line. The welded, prefabricated car sides have their side posts on the exterior, permitting uniform application of insulation. This departure from conventional refrigerator car construction will serve to reduce heat infiltration into the lading space.

#### **Body Construction**

Each car is fitted with three ends. The bulkhead between the machinery compartment and lading space, and the exterior end at the opposite end of the lading space (B end of the car), have the full structural characteristics required of freight-car ends. The car end forming the outer wall of the machinery compartment (A end) is much lighter, since it serves only to enclose the diesel engine and the refrigeration equipment.

Underframe, sides, ends and roof carlines are all welded together to form a single-unit carbody. The only rivets in the cars are those used for the application of steps, handholds, hangers, and similar appurtenances.

The plug-type side doors, 8 ft wide and 8 ft 2 in. high, have steel exteriors,

plastic inner liners, and foamed-inplace insulation. Plastic liner, door gasket and foamed insulation are supplied as a unit. Door construction of this kind is said to reduce heat infiltration and weight.

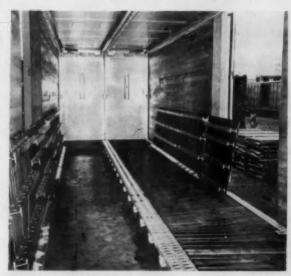
All cars are equipped with two steel load-divider gates, which can separate the lading space into three compartments. Gates can be locked at 2-in. intervals through the entire length of the lading space. The locks are positive devices designed to retain their rigidity and to hold the load in place under practically all conditions.

The lading compartment has aluminum I-beam floor rack stringers, with hardwood floor slats of the herringbone design, to support fork-lift trucks during loading and unloading.

Insulation in the side walls and floor is 7 in. thick. Roof insulation is 10 in. thick. Blanket-type insulation in the walls is Fiberglas.

The new cars are equipped either with Witte 100 RDS Model E or Detroit Diesel Series 2-53 diesel engines. Both engines have speed-actuating devices which allow operation at two speeds, the higher corresponding to 60-cycle, 22 volts at high speed, and the lower to 40-cycle, 150 volts.

The operation is such that each engine will run at its high speed until lading space temperature comes to within 2 deg of the thermostat setting. The



SEMI-ENVELOPE air distribution passes part of cool air through wall flues, rest through ceiling vents.



DOOR OPENING with 8-ft width simplifies lift-truck loading. Door has newly developed plastic liner.

### **Fleet**

thermostat signal will then drop engine speed to the low range. This saves fuel, helping as well to control humidity. It is expected the engine will be operating in the low speed range more than 80% of the time.

### Refrigeration Equipment

Each car carries 500 gallons of diesel fuel. The Trane refrigeration system includes a 10-hp compressor, a 1½-hp condenser fan motor and a ¾-hp evaporator fan motor. The electric heating cycle is activated when lading space temperatures goes 2 deg below the thermostat setting if the thermostat is set at 20 deg F or above. Electric defrost is activated by an air pressure differential switch which operates when the evaporator has sufficient ice buildup.

Over coupler pulling faces the cars are 55 ft 11 in. long. The inside width is 8 ft 8 in.; inside height from floor racks to ceiling, 8 ft 6½ in., and inside length between load-dividing gates, 44 ft 10 in.

Pacific Fruit Express, jointly owned by the Union Pacific and Southern Pacific, has operated mechanical cars for several years. Over the past three years, the number has been expanding rapidly. At present the total PFE fleet, including both ice and mechanical cars, consists of approximately 30,000 units.

### Partial List of Equipment on PFE Mechanical Refrigerator Cars

Trucks	. American Steel Foundries Buckeye Steel Castings Co. National Malleable & Steel Castings Co. Standard Car Truck Co.
Roller bearings	
Underframes	Gunderson Bros. Engineering Corp.
Underframes—cast-steel ends Car sides Car ends Side doors	Youngstown Steel Door Co. Standard Railway Equipment Mfg. Co.
Door liner and gasket	Landis Industrial Co.
Load dividers	Evans Products Co. Preco, Inc. Pullman-Standard Union Asbestos & Rubber Co.
Insulation	Gustin-Bacon Mfg. Co. Isoflex Corp. Landis Industrial Co. Owens-Corning Fiberglas Corp. Pittsburgh Plate Glass Co.
Batteries	Gould Batteries, Inc. Sonotone Corp.
Diesel engines	Detroit Engine Div., GM Witte Engine Works
Refrigeration units	Trane Co.

5 SUSTAIN DENY	A car checker asked to be relieved from duty because of illness. His superior refused and charged the car checker with violating Rule "G." A hearing, conducted by a trainmaster, resulted in dismissal of the employee. The employee was notified of his dismissal in a letter from the general manager, who had preferred the charges against him, and was the highest officer designated to hear appeals. A claim was filed on the ground that the general manager had denied to the car checker some of the normal avenues of appeal that should have been open between the trainmaster and the general manager.
6 SUSTAIN DENY	A hostler left railroad premises without authority. He was charged with this action and an investigation held. Following the investigation he was dismissed for absenting himself from duty and also for making false statements about his absence during the investigation. A claim was filed on the grounds that the matters for which the hostler had been dismissed were not covered by the original notice of investigation when the charges were placed.
7 SUSTAIN DENY	An assistant superintendent was notified orally by the general manager that he was removed from service. He was carried on the seniority roster as an excepted employee and sought to exercise his displacement rights under a specific rule providing that when employees are relieved from an excepted position, they may return to their former position or displace a junior employee. This the former assistant superintendent was not permitted to do. The organization contended that where the rule refers to an "employee," it meant "all employees covered," and not all "except those occupying excepted positions." The carrier contended that an employee occupying an official position was not covered by the Railway Labor Act, making his removal a matter solely between the company and the individual.
8 SUSTAIN DENY	An employee fell from a car and was injured. An investigation was planned to fix the cause of the fall. The employee was notified on four occasions to appear for a hearing, but replied each time that he was not physically able to do so. He was notified a fifth time that charges against him were pending and that failure to fix a time for his appearance would result in dismissal. He did not appear and was dismissed. His representative filed a claim for reinstatement.
9 SUSTAIN DENY	An engineer, charged with excessive speed, was dismissed after an investigation. Two of the carrier representatives who testified as witnesses also, as officers, questioned other witnesses. However, they did not preside over the investigation, nor did they have formal responsibility for the decision in the case. The appeal contended that the investigation was unfair in that the two carrier representatives occupied dual roles.
10 SUSTAIN DENY	An engineer was arrested by municipal police for drunkenness. The carrier began a Rule "G" investigation. Two city policemen attended the carrier's investigation and testified against the engineer, who was dismissed. Later, in an appeal to the district court from his conviction in city court, a jury acquitted the engineer of the drunkenness charge. The engineer's claim contended that his acquittal by the district court should also clear him of the railroad Rule "G" charges.

# SPECIAL FREIGHT EQUIPMENT

MADE WITH REYNOLDS ALUMINUM Lightweight, Easy to Handle, Strong



Rugged, Lightweight Reynolds Aluminum cuts work, adds payload capacity, serves longer

One good way to cut freight shipping costs is to cut the cost of handling that freight. And, as more and more shippers and rail operators are discovering, strong, lightweight Reynolds Aluminum is one material that can effect important savings in handling.

Used in containers and special freight equipment, aluminum—because it's strong, rustfree, and corrosion-resistant—can prevent damage, soiling and pilferage of cargo. These same qualities also mean that equipment made with aluminum serves longer with less maintenance, stays bright and clean with less work.

Reynolds Aluminum alloys developed for railroad equipment weigh as little as one-third as much as steel, so handling is easier, faster, more efficient. And not only is loading labor reduced, but payloads can be increased when the containers, crossmembers and bridge plates weigh less.

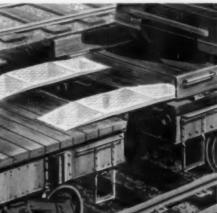
When you're specifying or buying special freight equipment, consider *all* the costs: maintenance, service life, handling, and non-paying weight. And consider protection of freight, and service to shippers. If you do, you'll want equipment made with rugged, lightweight Reynolds Aluminum.

Crossmembers made with Reynolds Aluminum are "one-man" crossmembers, weighing approximately one-half as much as the standard wood and steel types. Aluminum crossmembers are easier to handle, and they serve longer, won't rust or splinter—and never need painting. Freight is better-protected with crossmembers of Reynolds Aluminum because they're at least 10% stronger—and rust-free, to prevent stains.

Bridge plates, used to speed handling of piggyback containers on flat cars, combine high strength with low weight when made of Reynolds Aluminum plate or tread plate. Designed to carry 16,000 lbs. axle load, these manually-operated aluminum bridge plates weigh 139 lbs., compared to 300 lbs. for equivalent steel plates. They never need painting, never rust. In addition, aluminum retains a high scrap value after its long service life.

Containers, whether trailer van size or fork-lift truck size, are made for fast, efficient handling if they are made with Reynolds Aluminum. Stronger than steel, pound for pound, aluminum takes the roughest handling to protect freight from damage. Yet, it's light in weight, reducing the work, time, and power needed for loading—and adding payload capacity. Aluminum containers won't rust; they keep cargo clean without protective coatings.

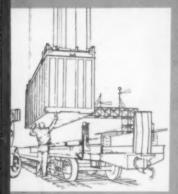




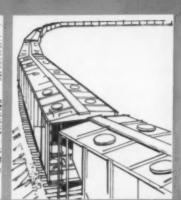


Write for details on railroad equipment made with Reynolds Aluminum . . . see next page

## Aluminum Designed for Railroad Use ...Reynolds Aluminum









There are many different kinds of aluminum. Knowing which alloy to use—in which form—for any specific railroad application is something that comes only with experience. That's why so many leading railroads, shippers, and equipment manufacturers turn to Reynolds Aluminum.

Reynolds has teamed with leading railroad equipment manufacturers and users to develop aluminum products that are designed to lengthen service, improve performance and cut costs of a wide range of railroad equipment. Reynolds Aluminum is at work right now in hopper and gondola cars; box car doors, roofs and innerliners; refrigerator car doors, flooring and floor racks; in railyard equipment such as building products, crossbuck and operating signs, and electrical conductor.

For details, or experienced technical help in the design, fabrication, or use of any railroad equipment made with aluminum, contact your local Reynolds office, or write Reynolds Metals Company, P.O. Box 2346-TM, Richmond 18, Virginia.



## REYNOLDS ALUMINUM

Watch Reynolds TV Shows: "Bourbon Street Beat" and "Adventures in Paradise"; and, resuming in October, "All Star Gelf"—ABC-TV



Here's the way the NRAB (or a Referee) decided the 10 cases on pages 17 and 24. How do your answers stack up?

- 1. Claim Sustained (Award 11364). The award stated that "it cannot be said with any degree of certainty on this record that all of the facts . . . were disclosed by the partial investigation or the admission of violation, or both. . This Division could not determine this question intelligently in the absence of a record of full investigation."
- 2. Claim Denied (Award 19157). "In this case," the award stated, "the record clearly shows that claimant voluntarily terminated his employment with the carrier. Under such circumstances, the Board has no jurisdiction to grant relief."
- 3. Claim Sustained (Award 5221). "There is nothing in the schedule," said the award, "which permits the carrier to delegate the authority to hear grievances involving discipline to any other

carrier, officer or person."

- 4. Claim Denied (Award 18244). The Board said, "The fact that he could not be present at the hearing was the result of his own misconduct. . . When claimant placed himself in a position where he could not fulfill his part of the contract, he had no just cause for complaint when [his] rights were erased."
- 5. Claim Sustained (Award 8431(3)). "The plain meaning of the language... as well as the intent of the Railway Labor Act is that in a case like this a first decision . . . by a lower carrier representative . . . may be appealed to one or more higher, different officers, including the top," the Board said.
- 6. Claim Sustained (Award 18901). "In any event," the Board said, "he cannot be dismissed for false statements until he has been given an investigation on that charge."
- 7. Claim Sustained (Award 6868(3)).

The board ruled that the schedule rule included both excepted and official positions and rejected the carrier's contention that the employee could be removed from an excepted position without an investigation.

- 8. Claim Denied (Award 10459). There are very few awards on this subject, and each case has to be considered on its own merits. In this decision, the Board apparently felt that the injured employee had not obeyed reasonable instructions.
- 9. Claim Denied (Award 16491). Stating that it frowned on one person acting as "witness, prosecutor and judge," the Board stated that "Such a situation did not exist here."
- 10. Claim Denied (Award 18839). "The investigation . . . for violation of rule was entirely independent of any court proceedings," the Board said, "and its findings were not avoided by any contrary verdict therein."

### Railroading



After Hours with

Jin Lyne

WHERE IS INFLATION WORST?—Everywhere money is declining in value

—which means that, everywhere in the civilized world, the local unit of money (dollar, pound, franc, peso or what have you) buys less and less each year.

In what country is the decline least? What country has the most stable money? I'd never have guessed it—but a table in the July "letter" of the First National City Bank of New York shows it's Portugal. Its money went down only 5% in value from 1949 to 1959, while our dollar's purchasing power skidded from 100 to 82 and the Canadian dollar fell to 79% of its 1959 value. Switzerland, Germany, Ecuador, Venezuela, Belgium, Pakistan and India—all held their money's value up better than Uncle Sam did.

Real inflation (decline of 90% or more in money's value in 10 years) occurred in Argentina, Paraguay, Chile and Bolivia.

SKULL PRACTICE—I've just finished reading a mindstretching book about the accomplishments, troubles, defects, and opportunities of big corporations. I'd guess that the head of any railroad (or aspirant to such a job), and financial and law executives, would find useful ideas in it. It is a symposium by a dozen or so prominent professors of law, economics, and political science—and is edited by Professor Ed Mason of Harvard.

The book's somewhat pompous title is "The Corporation in Modern Society." A more accurate label, I think, might be "Are Corporate Managements Preserving Private Enterprise or Letting It Melt Away?" Not all the authors

want to save private enterprise—but intelligent criticism, whether friendly or not, is helpful in revealing the places where some fence-mending wouldn't hurt.

TOO MUCH 'WELFARE'—Most of the contributors to the book see corporate managements recognizing their "social obligations" (i.e., to customers, to the community, to employees); and believe that managements are not out for maximum profit as almost their only objective.

One of the authors (Eugene Rostow of Yale) observes, however, that too much worrying about "welfare," and not enough rugged efficiency and competition, may divert the corporation from the justification for its existence, i.e., maximizing production and minimizing costs.

TO HIM THAT HATH—Roy Weber of Royal Oak, Mich., has sent me clips from

Detroit papers—indicating that the organized highwaymen are trying to get general tax money into the 41,000 mile superexpensive interstate highway system, alleging that it is a "defense" project. RW wrote to one of the papers to point out that existing highways will have plenty of room for any volume of "defense" traffic—by the simple device of gas rationing.

It seems to me that these highwaymen, like Fidel Castro, are asking for something; and, one of these days, they may get it. Americans are a patient people, but there comes a time.



L-M deep globe fluorescent luminaires with four 1.55 watt lamps  $\nu$  -wide evenly distributed glare-free lighting for the entrance road off the busy street and front parking area of Pennsylvania R. R. TrucTrain Terminai.

THE SUBURBANAIRES lighting the loading ramp are mounted on 8-foot standards out of the direct vision of the enginemen and tractor drivers. Each standard has an electrical and pneumatic outlet for workmen's tools.

L-M MERCURY OVALITE luminaires provide the rear parking area with a high level of light.



LINE MATERIAL Industries

DISTRIBUTION TRANSFORMERS - RECLOSERS, SECTIONALIZERS AND OIL SWITCHES - FUSE CUTOUTS AND FUSE LINKS - LIGHTNING ARRESTERS - POWER SWITCHING EQUIPMENT PACKAGED SUBSTATIONS - CAPACITORS - REGULATORS - OUTDOOR LIGHTING - LINE CONSTRUCTION MATERIALS - PORCELAIN INSULATORS - FIBRE PIPE & CONDUIT



L-M Lighting Engineers chose the Open Refractor, Suburbanaire luminaires with 400 watt mercury lamps for the difficult job of lighting the TrucTrain loading area. The Suburbanaire provides

adequate light under the trailers so that workmen can safely secure trailers to flat cars. Standards have been staggered to compensate for varying length of trailers.

## Pennsylvania R. R. TrucTrain Terminal Lighted With Line Material Luminaires

High level lighting, clearance, ease of maintenance, no interference with engineman's and tractor driver's vision—all these loading ramp problems were easily solved by L-M's mercury Suburbanaire.



THE L-M SUBURBANAIRE is specially designed for ease of maintenance. It is available with photocontrol of either incandescent or mercury lamps. High efficiency refractors are available in IES Types I, II, V and 4-way Type II patterns.

Pennsylvania Railroad's Chicago Truc-Train Terminal converts highway trailers to piggyback rail traffic. Handling approximately 6000 trailers a month requires round-the-clock operation. Adequate lighting is absolutely essential for efficiency and safety. Line Material was among various manufacturers invited to make recommendations for solving those lighting problems.

Lighting was required for three distinct areas, each with its own characteristics: the front parking area and entrance road off a busy street, the rear parking area, and the loading ramp.

Greatest variety of problems was faced in the loading ramp. Here lighting fixtures had to furnish sufficient highlevel lighting to allow adequate vision under the trailers, must not interfere with workmen, and must be mounted out of the tractor driver's line of vision. In addition, lights had to have sufficient clearance from the switch engine; be located below the engineer's eye level; withstand vibration, and be easily maintained.

Test installations of several types of equipment were actually made in this problem area. L-M Lighting Engineers chose mercury Suburbanaire luminaires for this trouble spot. This installation not only proved that the Suburbanaire could fulfill all the strict requirements of this location; but its refractive glassware permitted greater unit spacing resulting in reduced total installation cost—and convinced Pennsylvania Railroad personnel that Line Material equipment would light the TrucTrain Terminal.

L-M's 6-foot Fluorescent luminaires provide a high-level of even, glare-free light for the front parking area and particularly the entrance adjacent to a busy street. The rear parking area was lighted with L-M Ovalite mercury fixtures.

Line Material manufactures a complete line of fluorescent, incandescent and mercury luminaires for all outdoor lighting applications. Whatever your lighting problems may be, talk to your L-M Lighting Engineer. You'll get suggestions, information, bulletins and, if you wish, a complete lighting application engineering job. Or write Line Material Industries, Lighting Division, Milwaukee I, Wisconsin. In Canada: CLM Industries, McGraw-Edison (Canada) Limited, Toronto 13, Canada.

Outdoor Lighting

MCGRAW-EDISON



## **New Products Report**



### Locomotive and Caboose Radio

A new 25-watt two-way radio unit is packaged primarily for locomotive and caboose communications. Eight-watt audio power is provided, and the equipment can operate on 60 cycles 117 volt ac, or on 12 or 64 volt dc through a rotary converter. The new unit includes the base, base plate, and AAR plug and cable termination. It also includes a two-frequency control box. Four-frequency equipment is optional. General Electric Co., Dept. RA, Lynchburg, Va.



#### Diesel Starting Battery

The Edison Dynaclad battery is a lead-acid battery for diesel engine starting. Its tubular positive plate is constructed of high-strength interwoven modacrylic fiber tubes to withstand severe stresses. The battery has a corrugated, perforated polyvinyl-chloride separator, as well as a microporous rubber separator between positive and negative plates. Thomas A. Edison Industries, McGraw-Edison Co., Dept. RA, 189 Main St., West Orange, N. J.



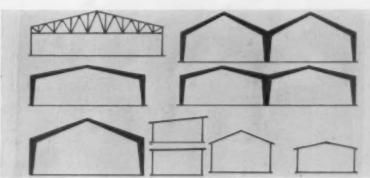
### Portable Megaphone

The PP-IT is a high power portable megaphone with self-contained power supply. It has a 25-wat transistor amplifier powered from lantern batteries. The hand-held dynamic microphone has a controlled response curve. A talk-listen switch converts the megaphone into a highly directional listening device. The unit is equipped with shoulder strap and carrying handle. University Loudspeakers, Inc., Dept. RA, 80 South Kensico Ave., White Plains, N. Y.

### Armco Steel Buildings

An expanded and improved line of Armco pre-engineered steel buildings was introduced in May. Clear-span widths of the new line range up to 120 ft for the truss-type and rigid frame structures. Wall heights range up to 40 ft for the truss-type and to 24 ft for those of the rigid-frame type. Buildings of the self-framing type have clear-span widths up to 32 ft and wall heights up to 20 ft. In addition, there is a new series of buildings with single-slope roofs. This series is available in widths up to 24 ft. Self-framing and rigid frame structures are now available with a new choice of roof slopes. These consist of the traditional 4:12 pitch and a new low-silhouette roof with a 2:12 pitch. Buildings with the single-slope roof are said to offer more variety, starting with a nearly flat roof design.

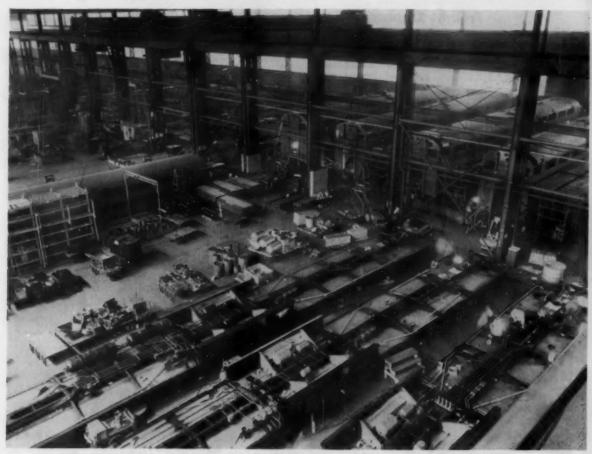
For the rigid-frame and truss-type buildings there is a new continuoustype purlin system. Advantages claimed for this system include lighter and stronger roof framework and faster, easier, more economical finishing.



CROSS SECTIONS of various types of Armco buildings show choice of roof slopes available for rigid-frame and self-framing types. Choice is between new low-silhouette roof (2:12 pitch) and traditional 4:12 pitch. Single-slope roofs offer even more variety.

Another feature of the new line is a "sculptured" Steelox curtain-wall panel said to provide an attractive shadow effect. It is now available as the standard wall covering for trusstype and rigid-frame buildings. Another innovation is a special new industrial interior wall panel designed to the same 16-in. module as the exterior Steelox panels. These panels are shipped ready

to snap in place, with moisture-proof insulation already applied. They are made to fit all Armco buildings and can be installed in all or any part of a building. When used with Steelox panels on exterior walls the special interior panels are said to provide an efficient wall from the standpoint of heat loss. Armco Drainage & Metal Products, Inc., Dept. RA, Middletown, Ohio.



WITH UNDERFRAMES being fabricated and assembled (foreground), roof sections waiting (at left) and double-deckers in various stages of construction (background),

Pullman-Standard is shooting for early-August delivery of the first of C&NW's 116 bi-level cars. The cars are being built at a cost of \$21,000,000.

## Commuters Keep Carbuilders Busy

Thanks to the development of the American type known as the commuter—and to some suburban roads' decision to give him high-class transportation—passenger car shops are humming again.

Pullman-Standard's South Chicago, Ill., shops (pictured here) are working on a 116-car, \$21,000,000 order from Chicago & North Western. Budd Company has an order for 40 suburban double-deckers from the Milwaukee and is working on 270 transit cars for Philadelphia (RA, July 4, p. 20). St. Louis Car is building a fleet of subway cars for New York City.

Both C&NW and Milwaukee eventually will have nothing but modern, air-conditioned bi-level cars in service. North Western's modernization will be complete next summer, Milwaukee's will take somewhat longer.





WINDOW trimmer gives finishing touch to the side of one of C&NW's new suburban cars.

STEEL ROOFS for bi-level cars await installation at Pullman-Standard's South Chicago works.

### Freight Operating Statistics of Large Railroads—Selected Items

February   Company   Com					Locomotive Miles		Car I	Car Miles		s (thousands)	Road-locos, on lines			
Fig.   Company	ı	Region, Road and Year	road	Train miles	and		(thou-	(thou- cent		rev. and			n.o.	Per cent
Colorana & Hudson		5 (Boston & Maine					8,717		639,704	4 246,619	82	**	15	15.5
### Process   1900   10   10   10   10   10   10	, N	N. Y., N. H. & Hartfd 1960	1,739	264,523	265,892	16,185	9,581	63.0	639,013			1	28	
Pel., Lack. & Wastern   1909   1919		- 1											15	18.1
Feb.   1909   218   220,000   218   220,000   218   220,000   22		1939	1764	160,273	163,093	2,849	8,086	62.6	584,335	286,315	34		5	
Prince   P		1959	918	238,988	244,383	13,060	9,964	64.3	688,474				5	
Section   Control   Cont	128	1959											7	4.0
See   Vord. Chica & St. L. 1960   11,142   194,460   197,000   1	He	Grand Trunk Western1960	981	215,526	215,812	1,430	7,471	58.0	523,571	200,359	45		4	8.2
New York Central   1966   19.35   1.51.50   2.171   0.04   0.05   1.05   0.05	8	Lebigh Valley 1960	1,114	194,449	197,059	5,757	8,518	65.2	588,354	268,586	28			
## Vork. Chic. & St. L. 1969   21,135   20,044   20,045	12		10,326	2,158,760	2,171,964	99,843	87,606	56.5	6,997,530					
Section   Compared	18							57.9 62.9		2,864,392			43	8.6
Walands	0	1959	2,155		600,548	4,673	27,087	62.6	1,970,093	855,877	104		8	3.6
Eulimere & Ohio   1969   2,379   49,993   50,166   4,912   20,506   6,115,506   537,991   114   20   6,4   4,92   106   5,72   5,008   107   108   109   1		1959	221	59,825	59,825		2,403	63.0	226,409	134,442	13		i	
Part   Part   1966   1974   1966   1967		Wabaan	2,379										- 6	
Bennymer & Lake Erin,   1966   200   43.13   45.266   44   1.576   65.28   156.497   97.24   14   27   14   27   15   15   15   15   15   15   15   1		Baltimore & Ohio				95,722					384			6.4
Company   Comp	1	Bessemer & Lake Erie1960	203	43,315	43,386	41	1,576	63.8	156,497	93,747	1.4		29	5.8
Elgin, Joint & Eastern III.   1966   583   100,500   1	le gr	Central RR Co. of New Jersey. 1960	594	114,232			4,208					2 2	- 5	7.0
Elgin, Joliet & Eastern   1969   203   118.866   24.602   5.773   62.8   431.966   215.050   206   3.8   1.5   2	F	1959							329,489	172,865			2	3.0
Pummy lyrain   1960   9.31   7.477.74   2.497.200   182.509   112.745   6.157   6.158   197.615   197.61	of er	1959	863	118,866	118,866	2,402	5,575	62.8	431,996	215,050	26		5	
	2	1959	205	71,551	72,027		2,398	61.0	201,752	109,523	43		1	2.3
Chempenks & Ohio. 1900 844 183,942 160,439 9,164 6,448 60.9 573,657 326,483 41 2 2 4.4  Chempenks & Ohio. 1900 1,0		Pennsylvania System							8,532,566	3,916,538				8.7
Chempenks & Ohio. 1900 844 183,942 160,439 9,164 6,448 60.9 573,657 326,483 41 2 2 4.4  Chempenks & Ohio. 1900 1,0	ant.	Reading	1,302	292,395	293,722	9,008	11,334	58.5	993,650	523,300	155	4	16	9.1
Chempenke & Ohio	0	Western Maryland1960	843	140,117	145,355	8,247	6,107	63.4	536,565	302,842	42		1	
Section   1969   5,061   1,151,010   1,54,102   1,9047   53,271   54.7   4,006,124   2,50,1067   613   22   3.5   614	2	/Chempeake & Ohio 1969										2		4.4
Atlantic Const Line.   1966   5.543   777.171   773.7717   7.427   5.34   5.12   5.117.199   687.364   123   3   2.3   Committed Georgia   1966   1.712   191.406   191.406   1.712   191.406   1.712	unt	1959	5,061 1	1,151,010	1,154,102	19,907	53,271	54.7	4,696,124	2,591,967	613		23	3.6
Atlantic Const Line.   1966   5.543   777.171   773.7717   7.427   5.34   5.12   5.117.199   687.364   123   3   2.3   Committed Georgia   1966   1.712   191.406   191.406   1.712   191.406   1.712	ah	1959	2,724	739,751	764,522	37,770	37,492	54.8	3,608,970					
Central of Georgia   1969	Poc	Rich., Fred. & Potomac1960 1959					2,487							
Control of Georgia.   1960   1.712   191.466	-	Atlantic Coast Line								967,304	129		3	2.3
Florida East Coast		Central of Georgia	1,712	183,764	183,764	2,097	7,427		558,966				1	2.9
	8	Florida East Coast 1960	1,712		191,460							- 4	1	2.9
	10	1959	572	125,171	125,171					103,114	53			-12
Southern. 1960 6.242 860.551 860.451 22.257 95.3 1.978.173 894.667 129 3 2.25		1959		265,996	265,996		15,195	66.0	1.031.119	514,709	82			9.9
Southern. 1960 6.242 860.551 860.451 22.257 95.3 1.978.173 894.667 129 3 2.25	le le	1959	6,439 1,	,030,981 1	,030,981	27,952	45,339	60.2	3,368,440	1.531.012				
Southern. 1960 6.242 860.551 860.451 22.257 95.3 1.978.173 894.667 129 3 2.25	1	Louisville & Nashville				15,578				1,472,311			3	1.8
Southern. 1960 6.242 860.351 860.401 1972 1973 1975 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 4 7 3.3 1955 63.9 2/781.400 1,473.162 199 1 10.8 199 1.5 10.8 199 1.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	100	Seaboard Air Line,				2,370	25,436						4	
Chicago & North Western. 1960 9,244 833,323 833,323 10,483 30,000 61.1 2,922,763 900,074 189 18	1	Southern	6,242	860,351	860,481	8,731	39,527	63.9	2,783,400	1,473,162	199		7	3.3
Chicago Great Western 1969	1	Chicago & North Western 1969											-	-
Chic., Milw., 84. P., & Pao		1959	9,251		829,168	11,438	31,584	68.4	2,304,643	1,008,017				
Dilutith, Missabe & Iron Range, 1940   575   50,239   30,239   145   623   49.0   54,748   28,159   43   30   5   6.4	릔	1969	1,437	133,465	133,465	185	7,186	66.4	501,082	230,574	25	4.4	î	
Dilutith, Missabe & Iron Range, 1940   575   50,239   30,239   145   623   49.0   54,748   28,159   43   30   5   6.4	9	1959	10,583	866,522	878,747	14,815	40,157	62.9	2,824,872	1,248,561				3.4
Great Northern   1960   8,275   915,652   920,105   19,310   37,384   64.7   2,678,272   1,195,898   276   7   15   5,0	E	Duluth, Missabe & Iron Range, 1960 1959	557			216							13	
Minn., St. P. & S. Ste. Marie.   1960   4.169   346,125   347,093   518   12,724   66.5   1895,777   393,320   92   4	2	Great Northern	8,275	915,652		19,310			2,678,272	1,195,898	276	7	15	5.0
Northern Pacific   1960	M	Minn., St. P. & S. Ste. Marie 1960	4,169	346,125	347,093	518	12,724	66.5	859,577	393,820	92		4	4.2
Spokane, Portland & Sentile   1960   936   143,225   143,225   1,044   6,214   73.1   149,582   203,181   53   2   3.6	ar.g	Northern Pacific1960	6,533	784,663	791,555	9,042	33,068	64.3	2,298,352	1,015,031	233	7	9	3.6
Atch., Top. & S. Fe (incl. 1960   1959   935   140,792   140,792   12,256   6,136   74.8   397,049   187,666   53   1   1.9   G. C. & S. F. and P. & S. F.) 1959   13,104   2,714,343   2,927,004   70,032   120,662   63.0   8,642,533   3,341,399   566   6   112   16.4   G. C. & S. F. and P. & S. F.) 1959   13,104   2,714,343   2,927,004   70,032   120,662   63.0   8,642,533   3,341,399   566   6   112   16.4   G. C. & S. F. and P. & S. F.) 1959   1,102,731   1,100,611   35,355   46,680   65.0   3,191,238   1,343,599   137   5   77   35,2   G. Chic., Burl. & Quimey   1960   8,652   1,045,503   1,044,223   22,062   44,810   64.8   3,083,467   1,343,599   137   5   77   35,2   G. Chic., Rock I. & Pac.   1960   7,511   1,027,31   1,100,611   35,355   46,680   65.0   3,191,238   1,386,191   132   10   72   33,6   G. Chic., Rock I. & Pac.   1960   7,542   1,071,568   1,072,266   2,359   44,810   64.8   3,083,467   1,343,599   137   5   77   35,2   G. Denver & R. G. Wostern   1960   2,128   310,029   322,004   31,803   14,322   72,3   1,013,093   490,068   00   4   9   9,7   G. Chic., Rock I. & Pac.   1960   2,128   310,029   322,004   31,803   14,322   72,3   1,013,093   490,068   00   4   9   9,7   G. Chic., Rock I. & Pac.   1969   2,128   37,358   315,639   29,72   46,611   72,9   1,011,635   495,526   78   7   7,6   G. Chic., Burl. & Pac.   1969   9,747   1,953,170   1,979,956   33,362   99,91   65,7   7,13,867   3,091,163   717   18   26   3,4   G. Western Pacific   1969   9,747   1,953,170   1,979,956   33,362   99,91   65,7   7,746,988   2,923,678   346   30   73   16,3   G. Western Pacific   1969   1,188   278,747   244,780   24,029   11,116   71,7   728,636   30,45,893   655   4   32,422   G. MoKana-Texas Lines   1960   7,46   73,556   200,563   39,33   11,177   70,877   70,877   73,222   14,242   G. Louis Souther   1960   9,413   1,225,526   1,225,526   8,806   57,720   64,1   1,21,31   1,44,515   19   20   8,4   G. Louis Southw. Lines   1960   9,413   1,225,526   1,225,526   8,806   57,720   64,1   1,121,34	Z	Spokane, Portland & Seattle 1960	936	143,225	143,225	1,044	6,214	73.1		203,181			14	
Chie, Burl. & Quincy. 1969	(	1939					6,136	74.8	397,049	187,666			1	1.9
Section   Sect	hom	G. C. & S. F. and P. & S. F.) 1959	13,104 2,	714,343 2.	927,004					3,341,939		6		
Denver & R. G. Western. 1960	3	Chic., Burl. & Quincy	8,652 1,	102,731 1.	,100,611	35,355				1,386,191	132	10	77	
Denver & R. G. Western   1960   2,128   310,020   322,094   31,863   14,322   72,3   1,013,093   490,068   80   4   9   9.7	E	Chie., Reek I. & Pac	7,542 1,	071,568 1.	.072,286	2,559	43,431	62.9	3,007,346	1,216,441	199			3.4
Southern Pacific   1969   8,010   2,131,157   2,219,290   153,220   102,096   66.3   7,037,806   3,091,163   717   18   26   3,4	age		2,128	310,020	328,084	31,863	14,322	72.3	1,013,093	490,068	80	4		9.7
Union Pacifies	West	Southern Pacific1960	8,010 2,	131,157 2,	219,290	153,220 1	102,096	66.3	7,037,806	3,091,163	717		26	3.4
Kansan City Southern   1960   886   126,529   126,527   14   8,078   65,6   608,863   235,085   23   1   4,2	-	Union Pacific	9,747 1.5	953,170 1,	979,956	\$3,362	98,991	65.7	7,103,867 6,746,988	2,923,678	346	30	73	4.6 16.3
Kansan City Southern   1960   886   126,529   126,527   14   8,078   65,6   608,863   235,055   23   1   4,2	무	1959	9,759 2,1 1,188	278,747	297,980 284,780			64.7	7,263,206	3,074,440		24	119	24.2
1959   806   133.530   133.730   85   8.489   67.1   629.773   297.155   25   1   3.8		1959	1,189	273,568	200,563	39,833	11,177	70.8	729,774	327,223	45		1	2.2
		1959	886	133.530	133,730	85	8,489	67.1	629,773	297,155				3.8
St. Louis-San Francisco   1959   9,513   1,149,575   1,149,575   8,463   55,586   65,4   3,935,960   1,805,828   215   8   20   8.2	E	Louisiana & Arkansas1960		79,554	79,554	25		63.8	312,319	151,572	16	**		
St. Louis-San Francisco   1959   9,513   1,149,575   1,149,575   8,463   55,586   65,4   3,935,960   1,805,828   215   8   20   8.2	6	MoKansTexas Lines1960	2,915	246,319	246,319	2,335	10,028	61.9	744,166	319,690	59			
8t. Louis-Sas Francisco. 1960 4,527 614,806 614,806 6,792 24,496 66,9 1,653,457 757,210 102 11 9,7 8t. Louis-Southw. Lines. 1960 4,536 575,493 575,493 575,493 675,493	E .	Missouri Pacific	9,413 1,3	225,526 1,	225,526	8,886	57,720	64.1	4,121,134	1,840,151	219		20	8.4
8t. Louis Southw. Lines	B 1	1959	4.527	614,806	614,806	6,792						8	20	8.2
Texas & Now Orleans   1969   1,554   348,617   348,617   4,343   16,565   71.7   1,036,603   463,376   51   1   1,9   1,9   1,5   1,0   1,5	8	1959	4,536	575,493	575,493	5,866	24,553	69.0	1.681,312	768,130	102	0.0		6.4
Texas & Pacific	4	1959	1,554	348,617	348,617	4,343	16,565	71.7	1,036,603	463,376	51		1	1.9
Texas & Pacific	8	1959	4.154 (	567,716	667,716	535	29,725	65.9	2,095,024	948,681	138		1	1.4
1959 1,022 294,313 294,313 2,767 13,814 63.8 1,015,387 410,272 35 2 5.4	13	Fexas & Pacific	1,819 3 1,822 2	008,153 294,313	308,153 294,313		14,240 13,814	61.8	1,078,416 1,015,387	409,229 410,272			2 2	5.0 5.4

0

### For the Month of March 1960 Compared with March 1959

				Freight care on line				G.t.m.per		Net		Net				
	Region, Road and Year					Per	train-hr. exc.locos and	train-mi excl.locos	ton-mi	per l'o		per	ton-mi.	miles	per loco.	
	C Destan & Males	.1960	Hom 2,27	e Foreign		B.O.	tenders	tenders	mile	mile	day	day	road-mi.	train- hour	day	
1	Boston & Maine	1959	2,24	11 7,59	6 9,837	3.4 3.4 8.2	42,376 42,673	2,685	1.052	2 27.6	756		5,146 4,954	15.8	87.4 82.4	
×	N. Y., N. H. & Hartfd	1959	3,04	3 13,46	3 16,506	4.9	38,428 43,480	2,416				9 27.6		15.9	138.0 122.5	
	Delaware & Hudson	1960	4,02 5,04	1 5,36	6 10,407	8.5	63,037 65,656	3,482	1,736 1,796	36.6	1,097		12,788 12,089	18.2	171.1	
	Del., Lack. & Western	.1960 1959	5,70 6,12			11.4	53,751 53,217	2,941	1,246	29.8		35.0			150.5 149.2	
ol a	Erie	.1960 1959	10,43	1 14,28	8 25,939	10.2	69,026 72,513	3,290	1,304 1,387	25.5	931 918	53.8	10,709	18.5 21.2 21.2	145.0 121.6	
1	Grand Trunk Western	1959	5,10 4,94	9 9,27	1 14,223	6.6 5.2	55,340 53,571	2,438 2,421	933 978	26.8	517 521	33.2 29.5	6,796 7,509	22.8	114.9	
les	Lehigh Valley	1960	6,69 7,07	7 8,32	5 15,403	12.2	61,978	3,057 2,973	1,396 1,363	31.5	563 569	27.4 27.5	7,777 7,768	20.5	211.8	
2	New York Central	1959	60,36	7 70,533	133,694	9.3	56,715 56,941	3,269 3,190	1,357 1,359	33.2 33.4	708 660	37.8 34.1	9,074 8,889	17.5	165.6 166.0	
100	New York, Chic. & St. L	1960 1959	9,24: 9,64	14,155	23,796	14.2	57,460 60,356	3,217 3,319	1,408 1,442	32.0 31.6	1,205 1,150	59.9 58.1	13,195 12,812	18.1	164.9 156.7	
0	Pitts. & Lake Erie	1959	5,510 6,583	4,887	11,474	5.6 7.7	60,018 60,651	3,952 3,810	2,376 2.262	56.7 55.9	361 355	9.9	20,179 19,624	15.3 16.0	118.6	
	Wabaah	1960 1959	10,113	7,896		12.0 8.3	75,167 67,772	3,117 2,843	1,283	28.4 27.2	1,031	56.2 57.8	7,361 7,554	24.2 23.9	127.1	
	Baltimore & Ohio	1960	57,734 61,709		100,050	12.5 18.0	52,220 56,423	3,397 3,511	1,605 1,671	38.6 37.3	716 691	31.5	12,048	15.6	114.9	
glo	Bessemer & Lake Erie	1960 1959	4,599 5,733	1,236	5,835 7,094	8.4 11.1	53,266 60,779	3,831 4,136	2,295 2,652	59.5	499	30.5	11,828 14,897	16.3	99.2 115.8	
Be	Central RR Co. of New Jersey	1960 1959	4,472 4,072	9,653 10,117	14,125 14,189	18.4	43,276 42,796	3,005	1,593 1,610	65.2 41.4 40.6	495 392	15.0	9,468	15.5	79.1	
ern	Chicago & Eastern Ill	1960 1959	3,386 3,446	3,096	6,482	8.1 14.2	66,660 65,783	3,834 3,663	1,895	39.1 38.6	1,073 1,136	15.9 44.9	9,341 7,624	14.7	84.6 116.3	
Sast	Elgin, Joliet & Eastern	1959	7,503 7,973	9,089	16,592 16,798	4.8 5.3	20,621 20,412	2,785 2,919	1,500	48.0 45.7	211 209	46.9 7.6	8,038 17,290	7.6	79.9	
7		1960 1959	107,660 133,036	89,606 72,661	197,266 205,697	12.0 20.4	52,967 56,211	3,188 3,228	1,463	34.7	641	29.7 28.4	17,234	7.2 17.1	73.2 140.9	
mtr	Rending	1959	17,023 19,810	17,346 15,866	34,369 35,676	16.7 23.8	52,826 50,511	3,400 3,325	1,791	46.2 45.0	506 459	18.7	12,548	17.9	130.3 67.8	
2	Western Maryland	1960 1959	6,783 6,942	3,213 2,865	9,996 9,807	6.1	55,706 55,809	3,875	2,187 2,147	49.6 50.6	962	30.6	12,483	15.2	65.9 128.9	
8	Chempeake & Ohio	1960 1959	64,038 64,269	26,062 23,938	90,100 88,207	4.0	72,279 75,996	3,988	2,166	48.0	1,019	33.0 33.8	12,478 16,020	15.0 18.2	133.9 65.6	
hon	Norfolk & Western*	1960 1959	50,912 53,890	8,214 9,162	59,126 63,052	2.7	87,666 85,256	5,060	2,260 2,765	48.7 54.3	955 1,090	35.9 36.8	16,521 24,471	18.6 17.7	65.5 141.2	
He He	Rich., Fred. & Potomac	1960 1959	88 112	957 955	1,045 1,067	2.6	104,031 104,901	5,008 4,592 4,597	2,686 1,901	51.6 28.8	971 2,244	34.3 123.4	22,921 20,994	17.7	106.2 87.2	
-	Atlantic Coast Line	1960	19,298 21,153	16,685 16,262	35,983 37,415	5.1	49,964	2,877	1,838	27.6 35.4	2,127 862	124.6 41.9	20,074 5,609	22.8 17.4	85.8 207.7	
	Central of Georgia	1960	3,510 3,557	5,610	9,120 8,749	3.4	52,091 52,802	2,959 3,046	1,351	35.6 37.5	1,010	38.8	5,425 5,243	17.7 17.4	192.6 189.7	
lon	Florida East Coast	1960	723	3,920 4,947	4,643 5,637	3.1	54,100 46,765	3,110 2,708	1,513 962	37.2 27.9	1,034 782	43.4 53.2	5,458 6,142	17.4 17.3	198.0 77.5	
Pe Pe	Gulf, Mobile & Ohio	1960	6,592 6,498	9,638	16,230	6.7	42,845 78,186	2,480 3,988	1,916	26.3 34.7	1,023	44.2 44.8	5,815 6,161	17.3 19.6	85.2 103.8	
E1	Illinois Central	1960	26,768 26,416	20,377 22,905	16,709 47,145 49,321	3.1	59,153	4,066 3,309	1,936 1,524	33.9 34.0	1,004	44.9 48.2	6,111 7,507	19.1	101.9 150.7	
the state of	Louisville & Nashville	960	32,802 37,766	18,724	51,526	11.3	61,767 55,073 55,482	3,296 3,120	1,498	33.8	1,007 912	49.5 38.2	7,670 8,382	18.9 17.7	97.5 203.9	
8	Seaboard Air Line	960	15,239 18,104	14,571 11,974	29,810 30,078	3.3	60,883 60,395	3,141 3,405 3,278	1,549 1,582 1,483	38.7 37.1 35.3	805 1,044	34.7 47.4	7,620 7,360	17.7 18.2	191.9 182.5	
1	Southerni	960 959	21,237 20,437	31,592 27,992	52,829 48,429	3.7	55,398 61,507	3,240	1,715	37.3 32.7	949	45.4 37.9	6,797 7,613	18.8	176.6 148.7	
(	Chicago & North Western1	960	23,367 21,398	27,765 26,177	51,132	7.6	46,598	2,763	1.085	29.9	897 563	42.6 30.8	7,035	17.9	154.0	
8	Chicago Great Western	960	2,634 2,264	4,578	47,575 7,212	3.4	51,477 66,229	2,794 3,581	1,222 1,650	31.9	1,073	29.9 50.2	3,515 5,063	18.5 18.5	169,0 177.2	
To o	Chic., Milw., St. P. & Poc	960	28,286 30,357	3,542 21,469 23,590	5,806 49,755 53,947	5.3	71,686 64,148	3,761 3,198	1,731	32.1 31.1	1,268 746	59.6 37.7	5,176 3,464	19.1 20.1	178.2 163.2	
-	Duluth, Missabe & Iron Range. 1	960	12,867	504	13,371	1.1	65,268 29,884	3,267 1,935	1,444 995	31.1 45.1	713 69	36.4	3,806 1,580	20.0	103.9	
210		960 950	24,042 22,738	18,001 20,038	14,594 42,043 42,776	3.5	20,785 63,703	1,363 2,938	1,312	37.0 32.0	928	1.7	859 4,662	16.0 21.8	16.0 112.4	
8 7		960	7,197	5,493	12,690	3.4 6.8	63,539 49,102	3,000 2,490	1,316	31.4	907 972	45.5 47.2	4,739 3,047	21.3	112.3 124.1	
ort.	Northern Pacific	960 950	6,720 18,401 18,913	5,714 15,284 16,420	12,434 33,685 35,333	9.5 3.1	48,594 64,035 64,857	2,463	1,109	30.9	970 964	48.0 48.8	3,088 5,012	19.8 21.9	132.0 110.5	
N S		960 959	1,449	4,206 3,916	5,655 5,227	2.6 3.6 2.8	41,658	2,915	1,272	29.5 32.7 1	929 1,176	48.1 49.2	4,858 7,002	22.3 14.2	110.8	
8 (1	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 15		51,647	32,169	83,816	4.6	44,009 78,806	2,830 3,140	1,338	28.6	1,142 1,315	49.9 72.8	6,475 8,521	15.6	95.8 156.1	
2010	Chic., Burl. & Quincy	160	48,932 26,889	37,152 20,678	86,084 47,567	4.1	79,062 63,970	3,195 2,964	1,235	27.7 30.0	1,273 934	72.9 48.0	8,227 5,025	24.8	149.1 167.2	
E C	Chic., Rock I. & Pac	059 060 059	22,814 14,863 14,578	23,483 20,254 22,398	46,297 35,117	3.7 5.4	64,848 60,812	2,919 2,934	1,268		954 1,086	49.4 59.6	5,168 5,224	22.4	179.3 174.6	
atern D	Denver & R. G. Western 19	160 169	8,574 8,364	6,173 5,896	36,976 14,749 14,260	4.9 5.2	61,574 67,513	2,907 3,273	1,214	34.2	1,196 1,061	58.8 42.9	5,551 7,429	21.2	199.7 129.7	
D 9	outhern Pacific 19	160	30,298	40,000	70,298	5.6	72,167 75,036	3,411	1,671	30.3 1	1,136 1,459	46.0 72.7	7,512	21.2	124.7	
3 0	Inion Pacific	60	32,399 31,075	42,678	74,722 64,592	2.5	69,950 93,412	3,260 3,476	1,398 1,506	29.5 1	1,360	70.7 75.0	12,262 9,676		22.7 48.6	
Central	Vestern Pacific	60	2,565 2,680	34,813 2,443 3,486	65,888 5,008	1.7	91,002 74,252	3,235 2,633	1,369 1,203	28.9 1 29.9 2	,523	81.6	10,162 9,038	28.4 1	63.5 93.4	
CR	Cansus City Southern	60	2,135	5,690	6,166 7,825	4.7	78,084 99,083	2,679 4,824	1,201 2,258		,766	85.3 51.1	8,878 10,378	29.3 2	32.6 12.8	
	ouisiana & Arkansar	60	2,461 1,806	5,185 3,556	7,646 5,362	6.4	100,828 78,650	4,750 3,956	2,241 1,920		,244 926	53.0	10,819	21.4 2	01.0 05.0	
	foKansTexas Lines19	59 60	1,997 5,132	2,989 5,609	4,986 10,741	7.6	82,496 55,944	4,316 3,025	2,145		,016 961	38.9 48.7	6,822 3,538	19.2 1	92.1 50.8	
M	limouri Pacific19	60	5,182 24,011	6,028 21,658	11,210 45,669	9.7	68,406 70,583	4,038 3,376	1,827 1,507	32.3 1	.070	51.0 62.8	4,312	17.0 1	16.6 82.7	
\$ 8	t, Louis-San Francisco19	59 60	23,265 11,396	10,303	46,034 21,699	8.7 1.8	71,004 57,181	3,443 2,703	1,580 1,238	32.5 1 30.9 1	,285 ,275 ,157	60.0 55.9	6,123	20.7 1	66.5 97.2	
S	t. Louis Southw. Lines19		12,041	9,626 3,196	21,667 4,933	2.2	61,373 77,113	2,930 3,110	1,339	31.3 1.	,183	54.8	5,463	21.0 1	92.4	
40 1	exas & New Orleans190	59 60	2,149 6,306	4,377	6,526 20,766	2.3	71,941 81,463	2,983 3,378	1,334	28.0 2.	,216 1	10.5 66.5	9,619	24.2 2	34.2	
T	exas & Pacific	59 60	6,239 3,184	14,287 5,602	20,526 8,786	1.6	77,071 83,198	3,153 3,515	1,428	31.9 1.	452	69.0	7.367	24.6 10	48.1 52.6	
-	udes operations of Virginian Ry. (	59	3,102	6,115	9,277	3.2	78,975	3,464		29.7 1,	467 428	82.6 75.3	7,257 7,264		70.3	

<sup>\*</sup> Includes operations of Virginian Ry. Co., merged into Norfolk & Western Ry. Co., December 1, 1959.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

RAILWAY

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### Handy Reference to Railroad Associations

AIR BRAKE ASSOCIATION. — John B. Ball, 224
S. Lincoln Ave., Autora, III. Annual meeting, September 12-14. Hotel Sherman, Chicago,
ALLIMB RAILWAY SUPPLY ASSOCIATION.—Albert
Schifflers, Jr., BD E. Jackson Blvd., Chicago 4.
AMERICAN Associations of Bacacae Tharrier ManAGERS.—W. B. Paul, Scahoard Air Line, Room 408.
SAL Bldg., Richmond 13, Va.
AMERICAN ASSOCIATION OF PASSENCER RAYE MEN.—
F. X. Severisen, AT & SF Ry., 1115 Railway Enchange Bldg., Chicago 4. Annual meeting, October
20-22, Montreal.

change Bidg., Chicago 6. Annual meeting, October 20-22, Montreal.

American Association of Passenger Trappic Opportunities.

American Association of Passenger Trappic Opportunities.

Bith Ave., New York. Annual meeting, September 18-21, Hotel General Brock, Niagara Falls, Ont.

American Association of Rathagon Superminution.

Bith Ave., New York. Annual meeting, September 18-21, Hotel General Brock, Niagara Falls, Ont.

American Association of Trappic St., Chicago 5.

AMERICAN CASSOCIATION OF TRAPPICTURE PASSENGER ACENTS.—R. T. Mollencott, Wahreh, 1448 Railway Exchange, St. Louis I. Annual sales meeting, abourd SS North American, Chicago to Buffalo and return, August 27-September 5.

ANGRICAN CONNIL OF RABAGOM WOMER.—May Hurley, Chicago 6. Fall meeting, October 23-26, Sheraton-Blackstone, Chicago.

AMERICAN INSTITUTE OF ELECTRICAL ENGINERS.—N. S. Hibbinas, (Exec. Secv.) 33 W. 39th 5t., New York 18. Committee on Land Transportation. C. M. Hines, Westinghouse Aff Brake Co., Wilmerling, Pa. AMERICAN RAILWAY BRIDGE AND BUILDING ABSOCIATION.—Ms. Ruit Weggeberg, Room 235, 431 S. Dearborn St., Chicago 5. Annual meeting, September 19-21, Contrad Hillon Motel, Chicago.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—A Proposition of the Passes of the Passe

American Raliway Dryriophermy Association—F. V. Fisher, Elgin, Joliet & Eastern, Joliet, Ill. Annual meeting, May 15-17, 1961, Sheratom Hotel, Philadelphia.

American Railway Encirements Science and American Railways with the Association of American Railways with the Association of American Railways and Proposed Science an

ington 6, D. C.
Operating-Transportation Division.—A. I. Ciliske,
59 E. Van Buren St., Chicago 5.
Transportation Section.—M. A. Eaton, 59 E. Van
Buren St., Chicago 5.
Operating Section.—F. J. Parker, 59 E. Van
Buren St., Chicago 5.
Communications Section.—A. H. Grothmann, 59
E. Van Buren St., Chicago 5. Annual Meeting,
May 23-25, 1961, Leamington Hotel, Minneapolie,
Fire Protection and Insurance Section.—W. E.
Todd, 59 E. Van Buren St., Chicago 5. Annual
meeting, September 27-29, Statler Hilton Hotel,
Washington, D. C.

Todd, 59 E. Van Buren St., Chicago S. Annuamenting, September 27-29, Statler Hitton Hotel, Washington, D. C. Freight Less and Damage Prevention Section.—
G. H. Ruhle, 59 E. Van Buren St., Chicago S. Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago S. Medical and Surgical Section.—F. J. Parker, 59 E. Van Buren St., Chicago S. Annual meeting, April 1961, 8t. Louis, Mo. Protective Section.—F. J. Parker, 89 E. Van Buren St., Chicago S. Annual meeting, May 1961, Baltimore.

Safety Section.—F. J. Parker, 59 E. Van Buren St., Chicago S. Annual meeting, June 1961, Atlantic

Electrical Section of the Engineering and Me-

chanical Divisions.—C. C. Elber, S9 E. Van Buren St., Chicago S. Annual meeting, June 27-29, 1961. Sherman Hotel, Chicago.
Engineering Division.—E. G. Gehrke, 59 E. Van Buren St., Chicago S., Construction and Maintenance Section.—Neal D. Howard, 59 E. Van Buren St., Chicago S. Annual meeting, March 7-9, 1961. Conrad Hilton Hotel, Chicago.
Signal Section.—R. H. C. Balliet, 59 E. Van Buren St., Chicago S. Annual meeting, October 11-13, Morrison Hotel, Chicago.
Mechanical Division.—F. H. Stremmel, 59 E. Van Buren St., Chicago S. Annual meeting, June 27-29, 1961. Sherman Hotel, Chicago.
Purchases and Stores Division.—I. H. Bean (Exe., Vice-Chairman) Transportation Bidg., Washington 6, D. C. Annual meeting September 11-13, 1961. Conrad Hilton Hotel, Chicago.
Freight Claim Division.—R. E. O'Donnell, 59 E. Van Buren St., Chicago S. Annual Meeting, May 16-17, 1961, Benjamin Franklin Hotel, Philadelphia, General Claims Division.—R. E. Clark, Chairman, Transportation Bidg., Washington 6, D. C.
Finance Accounting, Taxation and Valuation Department.—W. Irvin, Vice-President, Transportation Bidg., Washington 6, D. C.
Accounting Division.—Philip A. Lyon, Transportation Bidg., Washington 6, D. C. Annual meeting, May 29-31, 1961, Altanta Biltmer Hotel, Atlanta, Treasury Division.—Philip A. Lyon, Transportation Bidg., Washington 6, D. C. Annual meeting, May 29-31, 1961, Atlanta Biltmer Hotel, Atlanta, Treasury Division.—Philip A. Lyon, Transportation Bidg., Washington 6, D. C. Annual meeting, October 6-8, The Gecenbrier, White Sulphur Springs, W. Va. School, Marchitensum.—Mrs. M. L. Ulruper, Executive Sec.

Association of Interstate Commerce Commission Lactitioners.—Mrs. M. L. Urmey, Executive Sec-tary, 112 ICC Building, Washington 25, D. C inual meeting. May 25-26, 1961, Denver Hilton

Hotel, Denver.

Association of Railboad Advertising Managers.

A. W. Eckstein, Illinois Central, 135 E. Eleventh
Pl., Chicago S. Annual meeting May 8-10, 1961,
New Orleans.
Association of Track and Structure Supplies.

C. L. Rager, Fairmont Railway Motors, 332 S.
Michigan Ave., Chicago 4.

CANADIAN RAILWAY CLUB.—W. J. Cadogan, P. O. Box 162, Montreal 3, Quebec. Regular meetings, second Monday of each month, except February, June, July and August, Queen Eliabeth Hotel, Montreal, Que.

Can DRFARTMENT ASSOCIATION OF ST. LOUIS.—J. J. Murphy, 4047 Miami St., St. Louis 16. Regular meetings third Tuesday of each month except June, July and August, Hotel Pick-Melbourne.

Can DRFARTMENT OFFICEMS ASSOCIATION.—E. W. Gehbardt, 297 Highland Avc., Elmburst, Ill. Annual meeting, September 12-14, Hotel Sherman, Chicago.

RUGI MERCHING. September 12-14, Hotel Sherman, Chicago.

Cas Forenan's Association of Orana, Council, Blayer and South Onana Inversignation.—C. C. Poetes!, Chicago & North Western, 11th St. and Arenue J. C. Council Bluffs. Le. Regular meetings, second Tuesday of each month, except July and August, Chieftain Hotel, Council Bluffs.

Car Forenan's Association of Chicago.—A. F. Jungblut, 218 Main St., Glen Ellyn, Ill. Regular meetings, second Monday of each month except June, July and August, LaSalle Hotel.

CENTRAL RAILWAY CLER OF BUFFALD.—F. I. McCrone Room 17, 2nd floor, Hotel Statier-Hilton, Burnal dinner, January 12, 1961.

CHICAGO RAILBOAD DIESER CLER.—E. C. Fosdick, 25 Hilton, Annual dinner, January 12, 1961.

CHICAGO RAILBOAD DIESER CLER.—E. C. Fosdick, 25 Hilton Blvd. Hoffman Estates, Roselle, Ill. Regular meetings first Tuesday after first Saturday of each month except July and August, Hamilton Hotel, 5:39 p.m.

CHICAGO RAILBOAD CAR ACCOUNTING OFFICERS.—J. A. Vogrin (Chairman) EJ&E RR., P. O. BOX 1411, Joliet, Ill. Regular meetings last Wednesday of each month, except July and August, Traffic Club, Felmer House, at 12:15 p.m.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—C. C. Robinson, Monoe RR. Lefayette, Ind. Next meeting November 19-11, Sheraton Park Hotel, Washington, D. C. EASTERS CAR FOREMAN'S ASSOCIATION.—F. Frey. Central of New Jersey, Room 6, Jersey City Terminal, Jersey City 2. Regular meetings second Tuesday of January, February, March, April, May, October and November. Railroad-Machinery Club, 30 Church Sc., New York, Annual outing, econd Thursday in July, Race Brook Country Club, Orange, Conn.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark. Annual meeting. September 12-14, Hotel Sherman, Chicago.

MAINTENANCE OF WAY CLUB OF CHICAGO.

-J. S. Kopec, CMStPAP, Room 890, Union Station,

—J. S. Kopec, CMSP&P, Room 898, Uzion Station, Chicago 6. Regular meetings, October through April, Hamilton Hotel, Chicago.

METROFELTAN MASTENDANCE OF WAY CLUB.—

R. C-aib, Railway Age, 30 Church St., New York,
T. Meets October 27, December 8. Railroad-Marchinery Club, 30 Church St., New York,
MILITARY RAILWAY SERVEZ VETRANS.—F. W. Okie,
Bessemer and Lake Eric, P. O. Box 536, Pittsburgh 30, Annual reunion, September 23-25, Trest
Hotel, Ft. Worth.

MESSTARIETY VALLEY MAINTENANCE OF WAY CLUB.—

Mississipt Valley Maintenance 63-29, Texas Mississipt Valley Maintenance or Way Club.-E. E. Brady, Wahash, 1402 Ry. Exchange, St. Louis I. Regular meetings, second Monday of each month, September through May, Ambassador-Kingsway Hotel, St. Louis.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—R. Everette Kreeger, SJIO ICC Bldg., P. O. Ben 664, Washington 4, D. C. Annual meeting, November 28-December 1, Stardust Hotel, Las Vegas.

NATIONAL ASSOCIATION OF RAILROAD ENGINERS OF TRAY.—R. A. Bardwell (Chairman), Chicago & Eastern Illinois, Danville, Ill. Next meeting Sept. 12, Hotel Sherman, Chicago.

NATIONAL ASSOCIATION OF RAILROAD THAL COUNSEL.—J. J. McCarthy (Exec. Dir.) Room 5655, Grand Central Terminal Bidg., New York 17. Annual meeting, September 6-8, The Greenbrier, White Sulphur Springs, W. Va.

NATIONAL ASSOCIATION OF RAILROAD ENGINEES WOMEN.—Miss Rosalie Draper, Chicago, Rock Island & Pacific, Room 900, LaSalle Street Station, Chicago. Annual meeting, May 8-12, 1961, Stardust Hotel, Las Vegas.

NATIONAL ASSOCIATION OF SHIPPERS' ARVISORY BURNADOR.

Las Vegas.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY
BOARDS.—R. J. Tyler, Tube Turns & Girdler Div.,
Chemetron Corp., 224 E. Broadway, Louisville I.
Annual meeting, October 11-13, Nicollet Hotel,

BOARDS.—R. J. Tyler, Tube Turns & Girdler Div., Chemetron Cosp., 224 E. Broadway, Louisville J. Annual meeting, October 11-13. Nicollet Hotel, Minneapolls.

NATIONAL DEFENSE TRANSPORTATION ABSOCIATION.—Lily M. Beauchemp, 1612 K. St., N.W., Washington 6, D. C. Annual meeting, October 2-5, Roose-velt Hotel, New Orleans.

NATIONAL INDISTRIAL TRAFFIC LEAGUE.—L. J. DOFF, Suite 909, Sheraton Bldg., 711 14th St., N.W., Washington 5, D. C. Annual meeting, November 17-18, Commodore Hotel, New York.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—5. C. Johnson (asset. eecy.) Dearborn Chemical Co., Merchandise Mart Plans, Chicago 5d. Exhibit at Exposition Center, Chicago, March 6-9, 1961, in conjunction with AREA Convention.

NATIONAL SAFETY COUNCIE, RAILBOAD SECTION.—6. C. Stromsoc, (vice-chairman) Atlantic Coast Line, Wilmington, N. C. Annual meeting, October 18-20. LaSalle Hotel, Chicago.

New ENGLAND RAILBOAD CLUE.—William M. McCombb., SS Lewis Wharf, Boston 10. Regular meeting, second Tuesday in October, December, February and April. Hotel Vendome, Doston, 6:30 p.m. Annual banquet second Thursday of May each year.

Naw Younk RAILBOAD CLUE.—W. P. Dirard, 36 Church St., New York 7. Regular meetinge, third Thursday of each month except June. July, August, September and December. Century Room. Commodore Hotel. Reception 5:30 p.m.; dinner 6:30. meeting, 7:45. Annual dinner, December 8. Northways Camman's Association.—W. N. Cox, P. O. Box 3346, 54. Paul 1, Minn. Regular meeting, fourth Tuesday of January, May and September, Hotel Nicollet, Minneapolis; fourth Tuesday of January, May and September, Hotel Nicollet, Minneapolis; fourth Tuesday of January, May and September, Hotel Nicollet, Minneapolis; fourth Tuesday of January, May and September, Hotel Nicollet, Minneapolis; fourth Tuesday of January, May and September through April, inclusive, except November and December which are third Thursday, Coleman's Cafe, 2239 Ford Parkway, St. Paul.

PACIFIC RAILWAY CLUB.—S. E. Byler, 121 E.

PACIFIC RAILWAY CLUB. -S. E. Byler, 121 E. Sixth St., Los Angeles 14. Meetings in alternate months in San Francisco and Los Angeles. One meeting a year at Sacramento and at Rosevillo.

RAILROAD PUBLIC RELATIONS ASSOCIA-RAILHOAD PUBLIC RELATIONS ASSOCIATION, "H. H. Besterier Association of American Railroads, Transportation Bidg., Washington 6, D. C. RAILWAY CLUB OF PITTSBURGH."—C. E. Morrison. 2710 Koppers Bidg., Pittsburgh 19. Regular meetings third Wednesday of each month, except Juneschiem, incl., and December, Roosevelt Hotel. Dinner, 6:30 p.m.; meeting, 8. Annual dinner in November.

WAY COMMUNICATIONS SUPPLIES'S ASSOCIAT H. Allen, Room 322E, 30 Church St.,

York 7.
RAHWAY ELECTRICAL AND MECHANICAL SUPPLY
ASSOCIATION.—L. E. Oswald, Transquip Corp., 919
N. Michigan Ave., Chicago 11.

(Continued on page 41)



PULLMAN-STANDARD PLANT, MICHIGAN CITY, INDIA

Progress can be measured in many ways. At the Pullman-Standard Michigan City plant progress is measured by the skilled personnel and efficient equipment which keep pace with progressive ideas. That is why, at Michigan City, initiative and automation are essential and so very important to the manufacture of Pullman-Standard freight cars . . . cars with which railroads are meeting the challenge of the '60s.

# P-S STANDARDIZED ROLLING STOCK

PRODUCTS OF MODERN MASS PRODUCTION FACILITIES

All Pullman-Standard plants, like this one at Michigan City, Indiana, are equipped with modern production methods, skilled manpower and extensive facilities to mass produce the very finest in standardized railroad rolling stock.



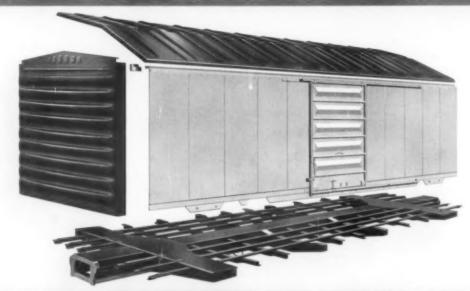
FROM MICHIGAN CITY ...

# PS-1 BOX CARS

BOX CAR PARTS

Pullman-Standard's modern plant at Michigan City, Indiana, specializes in the precision manufacture of standardized PS-1 Box Cars and Box Car Parts. Thoroughly tested and proved, the PS-1 offers many features that assure users a maximum number of efficient, economical revenue miles. Advanced production line techniques at Michigan City build economy, strength and long service life into every car.

Major parts for the rebuilding, repair and upgrading of PS-1 Box Cars are also produced at the Pullman-Standard Michigan City plant. Economical, high quality components such as P-S Sides, Ends and Underframes are the products of the same mass production methods used in the manufacture of the standardized PS-1 Box Car. In addition, parts are built to meet individual rail-road specifications. Costly jigs, fixtures and dies at Michigan City assure purchasers of PS-1 Box Cars and P-S Box Car Parts rugged dependability, top performance and minimum maintenance.





PS-1 BOX CAR CENTER SILL CONSTRUCTION—Pictured here at Michigan City are the two sections of the center sill being automatically submerged arc-welded together in a jig developed by Pullman-Standard for this purpose.



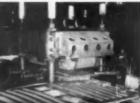
DOWN-HAND WELDING ON THE PS-1 BOX CAR UNDER-FRAME.—The welded bolsters, strikers and center fillers, stringers and floor beams are applied with a careful sequence of welding to minimize shrinkage and insure maximum structural strength.



AUTOMATIC ARC WELD-ING OF PS-1 BOX CAR SIDES—This machine, a result of Pullman-Standard's research in automatic welding, travels the length and width of a box car side and automatically arc welds side sheets together.



RIVETING SEAM CAPS ON THE PS-1 BOX CAR ROOF— This pneumatic riveting device rivets together roof sheets and hearing type seam caps. Weathertight P-S Roofs resist drumming and buckling even under severest operating conditions.



GIANT PRESS ADDS STRENGTH TO PS-1 BOX CAR ENDS—This giant 1500 ton press forms deep; scientifically designed and contoured corrugations in PS-1 Box Car end sheets to provide maximum strength and minimum deflection.



BOX CAR SIDE DOOR AP-PLICATION—Shown being positioned on a PS-1 Box Car, the P-S Side Door is designed and built to include maximum operating convenience, ease of maintenance, lading protection features and unusual durability.

## OTHER P-S STANDARDIZED ROLLING STOCK



PS-2 COVERED HOPPER CAR—Flexible standardization at its best with such new features as eleven-inch clearance at outlet gates, varied and increased capacities, 2007, 2929, 3215, 3506 cubic feet, and many other builtin railroad and shipper advantages from rail to roof.



PS-3 OPEN TOP HOPPER CAR—Reserve durability, the prime requirement of an open top hopper car, is built into every PS-3. All-welded construction, standardized design and extra strength in critical areas assure PS-3 users long car life and low maintenance service.



PS-4PB PIGGYBACK FLAT CAR—New unitized construction joins underframe and body members into a single, strong, all-welded structure for high-tonnage, high-revenue hauling. The PS-4PB is the standard of the piggyback fleets with 2500 units in service or on order.



PS-5 GONDOLA—The PS-5 Gondola combines quality with the mass-manufacturing savings possible through P-S Standardization. Built with production line methods, the PS-5 includes sufficient design versatility to meet variations in gondola use requirements.





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BIRMINGHAM, PITTSBURGH, NEW YORK
J. C. Fennelly Company, San Francisco Representative

# Wheat Traffic Outlook Good

► The Story at a Glance: The fourth largest winter wheat crop on record is in prospect for the 1960 harvest. Department of Agriculture figures place it at 992 million bushels-7% above 1959 and 19% above the 10-year average.

But the farmers haven't spent the profits yet. Nor have the railroads jotted down any record revenues. While the outlook is excellent, even the most optimistic forecasters temper their enthusiasm with warnings.

They fear possible reverses in the harvest estimates because of weather. The winter wheat harvest is behind schedule due to a wet and late spring. Spring plantings are correspondingly late. The lateness of the growing season leaves the crops particularly susceptible to any abnormal dry, hot spells in the critical weeks to come.

Rail spokesmen view the grain traffic picture with guarded optimism. Despite adverse weather conditions in some areas, most feel that the current lag in grain carloadings over a year ago will be overcome and by year's end substantial revenue and traffic increases will be recorded.

CB&Q's June crop report notes that the "condition of winter wheat has improved in Lines West. Timely moisture along with cool temperatures have brightened prospects for this crop." In eastern Nebraska, conditions "show improvement since the first half of May. Loss due to hail has been lighter over the territory than experienced by this time a year ago."

In C&S territory, winter wheat looks good "where recent moisture has benefited the crop."

In the FW&D area, wheat is in "fair to excellent condition." Early yields have been very good in the Wichita Valley, where harvesting has already

Asked if 1960 grain revenues might increase to match the estimated increase in the harvest, a Burlington spokesman found the question "hard to answer." He noted that storage facilities were expanded throughout the Burlington territory last year and that the disappointing 1959 harvest had resulted in considerable storage being available for the current crop. He added that much of the grain traffic depended on government purchases and that this traffic depends on "demand and where the demand is."

Rock Island traffic men had one eye cocked on the weather as they prepared to move the first of the new wheat from Oklahoma last month. The "best car

supply in years" has been assembled by RI to receive the second largest wheat crop in Oklahoma history-an estimated 105 million bushels. Earlier fears that even this car fleet would be overtaxed if poor weather slowed the harvest in the earlier producing states seemed to be overcome as the combines moved northward in an orderly fashion.

A spokesman for the North Western said that "prospects for movement of grain are better than last year." He compared the drastic showing of the wheat and small grains crop in the Dakotas last year with the favorable estimates for the 1960 harvest. He also pointed out that the Great Lakes ports of Duluth-Superior "will be utilizing more rail corn via the North Western this year than last, since we can now offer the twin ports seven day free time . . . just as is done at other lake ports."

Another item in favor of increased grain revenues for the North Western is the huge late corn crop planted last year in Iowa that is now beginning to move to market and to storage.

Northern Pacific earlier reported "bumper crops" in Minnesota, North Dakota and Montana and recently the road noted that "with few exceptions, favorable rainfall and cool temperatures from June 15 to July 1 greatly improved the prospects in nearly all of this area." Moisture requirements of the late crop—development is the latest for the date since 1950-have been sufficiently met to build up the subsoil reserves that will be needed as the crop reaches maturity. NP reports that the heavy winter wheat acreage in Idaho,

Washington and Oregon, previously estimated as approximately equal to the 1959 crop, has maintained its capability of producing unusually high acreyields. Harvest of winter wheat in this area began last week. In Montana, winter wheat continues to show fair to good condition while in Minnesota winter wheat continues to improve and may establish yields equal to present records.

Noting that winter wheat outyields spring wheat, NP points out that the heavy acreage of winter wheat will be a factor in upping 1960 wheat tonnage. In Washington, winter wheat takes up 93.9% of the wheat acreage; 84.5% in Oregon. This is compared to the ten-year average of 80.3% in Washington, and 79.6% in Oregon. Also, notes NP, the yield per acre is about four bushels greater on the average for winter wheat.

Reporting on the territory served by the Santa Fe, the AT&SF June Crop Report states, "the 1960 winter wheat crop has met with some unpredictable circumstances as it enters the final stage of development." On the brighter side, the report indicates that "insects and diseases have not been a serious problem and as harvest gets underway in the early producing fields of Texas, the wheat crop in Illinois, Missouri, Kansas, Colorado, Oklahoma, and the irrigated wheat in the Texas Panhandle and eastern New Mexico, appears to be equal or better than last year's crop."

Revenue prospects from the 1960 grain harvest are, as usual, faced with a big IF. Favorable weather conditions must prevail if optimistic estimates are to hold true.

### RAILROAD ASSOCIATIONS (Continued from page 36)

Railway Furl and Operating Oppicers\* Association.—L. H. Peters, New York Central, Room 1213-139 W. Van Buren St., Chicago S. Annual meeting, September 12-14, Hotel Sherman, Chicago, Railway Process Institute.—T. A. Nooner, Jr., First National Bank Bidg., Chicago 3. Annual meeting, November 16-17, Hotel Commodore, New York Railway Supply Manufactures\* Association.—A. W. Brown, 527 Lexington Ave., New York 17. Railway Systems and Procedures Association.—G. C. Vietsch (Exec. Dir.), 433 Grand Central Station, Chicago 7. Next meeting, October 4-6, Hotel Morrison, Chicago 7. Next meeting, October 4-6, Hotel Morrison, Chicago 7. Next meeting, October 2-23, Statier Hilton Hotel, Cleveland. Roadmasters and Maintenance of Way Association.—Mrs. Ruth Wegeberg, Room 835, 431 S. Dearborn St., Chicago 5. Annual meeting, September 19-21, Conrad Hilton Hotel, Chicago.

ST. LOUIS RAILROAD DIESEL CLUB. - F. C. ST. LOUIS RAILROAD DIESZE, CLUB. — F. C. Whitlock, Terminal Railroad Association of St. Louis, 376 Union Station, St. Louis 3. Regular meetings, first Monday in January, March, May and November, second Monday in September. Hotel York, Dinner, 7 p.m.; meeting, 8. Signal Aspelance, Association, —W. H. Allen, Room 32ZE, 30 Church St., New York 7. Exhibit at AAR Signal Section meeting, October 11-13, Morrison Hotel, Chicago.

Southeastern Railwar Club.—H. W. Brewer, Seaboard Air Line, P. O. Box 63S1, Jacksonville, Fla.

Regular meetings, second Tuesday in February, April, June, August, October and December. Maysflower Hotel, Jacksonville.

Southean And Southwestern Rahlway Club.—D. G. Sudderth, P. O. Box 1205, Atlanta 1. Regular meetings, 9:30 a.m. third Thursday in January. March, May, September and November (annual meeting) in Atlanta Outing in July.

Southean Association of Car Service Officers, F. I. Umhau, Southern Ry., Atlanta 3. Next meeting, July 27:28, Hotel Thomas Jefferson, Birmingham.

TORONTO RAILWAY CLUB. — W. F. Saunders P. O. Box S. Terminal "A." Toronto 1, Ont. Regular meetings, fourth Monday of each month ex-cept February, June, July, August and December, Royal York Hotel. Annual dinner first Saturday in

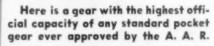
WESTERN ASSOCIATION OF RAILWAY TAX COMMISSIONERS. -L. A. Grotewohl (President), Room 1544, 80 E. Jackson Blvd., Chicago 4. Luncheon meetings, 12:15 p.m. first Wednesday of each month, except February, July, August and September, Traffic Club, Palmer House, Chicago. Semi-annual meeting September 26, Palmer House,

Scott-hunds meeting Coloring.
Wespenn Railway Club.—E. E. Thulin, Suite 339.
Hotel Sherman, Chicago I. Regular meetings held in February, March. April, May, October, November and December (Ladies night).

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## Carloadings

Loadings of revenue freight in the week ended July 2 were not available as this issue went to press.

Loadings of revenue freight for the week ended June 25 totaled 641,628 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CARLOADINGS

For the week	ended Si	sturday, Jui	ne 25
District Eastern	1960	1959	1958
	89,870	102,318	91,573
	108,676	127,014	112,431
	56,826	56,455	52,955
	110,398	113,924	105,662
	102,529	116,833	93,362
	119,377	126,872	120,805
	53,952	54,381	50,397
Total Western Districts	275,858	298,086	264,564
Total All Roads	641,628	697,797	627,185
Commodities: Grain and grain products Livestock Coal Coke Farest Products Ore Merchandise I.c.I. Miscellaneous	60,993	64,128	64,135
	3,819	3,978	3,951
	115,128	113,386	122,064
	6,935	9,183	5,739
	39,863	42,369	35,473
	72,435	75,439	53,990
	35,606	40,844	45,141
	306,849	348,470	296,692
June 25 June 18 June 11 June 4 May 28	641,628	697,797	627,185
	649,830	724,278	628,010
	648,463	709,841	622,686
	574,301	680,617	613,381
	640,388	687,063	529,779

Cumulative total, 25 weeks ...15,140,335 15,694,286 13,831,832

#### PIGGYBACK CARLOADINGS .-

U. S. piggyback loadings for the week ended June 25 totaled 11,236 cars, compared with 9,137 for the corresponding 1959 week. Loadings for 1960 up to June 25 totaled 264,739 cars, compared with 194,899 for the corresponding period of 1959.

IN CANADA.—Carloadings for the seven-day period ended June 21 totaled 78,867 cars, compared with 77,-701 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada June 21, 1960	 78,867	27,396
June 21, 1959 Cumulative Totals	 79,233	28,075
June 21, 1960	 1,689,164	703,479

## **New Equipment**

#### PASSENGER-TRAIN CARS

- ▶ New York City Transit Authority.—Has taken delivery of 110 new subway cars built by ACF, and will receive an additional 100 cars, now being built at ACF's Berwick, Pa., plant, between August and December. Each car contains 2,500 lb of Alcoa aluminum.
- ► Rock Island.—Ordered 25 baggage cars from St. Louis Car at a cost of \$1,600,000. Delivery is scheduled for December.

#### FOREIGN

► Venezuelan Government.—Has made a preliminary agreement to purchase the New Haven's three lightweight passenger trains-the "Roger Williams," "Dan'l Webster" and "John Quincy Adams"-for \$3.6 million. Final transaction awaits approval of Venezuela's 1961 budget, which includes funds for this purpose.

## **New Facilities**

- ► Canadian National.—Asked bids for construction of six small buildings, locomotive inspection pit and fueling, sanding and washing platforms at its new Moncton hump yard. This represents last major phase of construction at the \$15-million facility.
- ► Great Northern.—Plans to install radio in its 8-mile-long Cascade tunnel. Project will involve installation of 36 wayside stations 1,200 ft apart. Tests have indicated that radio transmission from the locomotive is about 1,200 ft in the forward direction, but only 600 ft rearward over the train.
- Norfolk & Western.—Completed a 1.53-mile connection between the N&W and former Virginian main lines at Kellysville, W. Va. This is the last of six major physical connections necessitated by merger of the two roads last Dec. 1.
- Northern Alberta.—Construction and M/W expenditures for projects authorized or under way will total approximately \$2.3 million. Major items are: Continuation of rehabilitation of Lac La Biche and Waterways subdivisions, \$993,050; tie renewals, \$601,000; rail relay, turnout replacement and track extensions at various points, \$328,720; reconstruction of 18 bridges, \$255,000; purchase of equipment, \$133,900.
- ► U. S. Steel.—Construction has started on a 78-mile "spur track" connecting U. S. Steel's open pit taconite mining and beneficiating operation at Atlantic City, Wyo., with the UP at Winton Jct. Engineered by UP, the line is being built by Pomeroy-Bechtel Taconite Ore Joint Venture, Inc. Operating details still must be worked out for the USS-owned line, which is to be completed in late 1962.

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C. W. Show, Jr.



John Edwards B&O



J. A. Caywood B&O



J. T. Collinson



William D. Lamprocht



William M. Jaekle

# People in the News

ATLANTIC COAST LINE.-L. W. Green, assistant general superintendent transportation, Wilmington, N. C., retired July 1.

BALTIMORE & OHIO.—J. R. Freese, superintendent, Monongah division, Grafton, W. Va., appointed general superintendent transportation, Baltimore, Md. C. W. Shew, Jr., trainmaster, Baltimore, succeeds Mr. Freese. John Edwords, assistant superintendent, Baltimore, named superintendent, Indianapolis division, succeeding the late R. J. Roeder. Allen W. Johnston, supervisor of terminals, Baltimore, succeeds Mr. Edwards.

J. A. Caywood, engineer—maintenance of way. Baltimore, appointed assistant chief engineer—maintenance, succeeding C. E. Juckman, promoted to chief engineer (RA, June 27, p. 71). J. T. Collinson, division engineer, Baltimore, succeeds Mr. Caywood.

Robort M. Meflin, assistant general storekeeper, appointed lumber agent and assistant to purchasing agent, Baltimore, succeeding E. B. Isenogle, retired.

CANADIAN PACIFIC.—W. R. Juckett appointed general counsel, Montreal. Title of ion D. Sincleiv, vice president and general counsel, will henceforth be vice president—law.

CLINCHFIELD.—Thurman B. Martz appointed general industrial agent, Erwin, Tenn., succeeding George M. Timberman, who has joined the Lovisville & Nashville.

ELGIN, JOLIET & EASTERN.—Horold R. O'Brien, assistant traffic manager, Chicago, appointed traffic manager. M. G. Lupo, general freight agent, named assistant traffic manager. Dwight W. Anderson, assistant general freight agent, promoted to general freight agent. Denoid G. Olson, general traffic agent, named manager—sales and service. Michoel J. Moron, assistant to traffic manager, appointed assistant manager—sales and service.

JERSEY CENTRAL.—R. A. Doley, auditor of disbursements, appointed general auditor. J. A. Dinsmore, assistant auditor of disbursements, and W. E. Smythe, auditor of general accounts, named assistant general auditors. All are at Jersey City, N. J.

LOUISVILLE & NASHVILLE.—John T. Metcalf, general solicitor, Louisville, retired June 30.

John J. Mirande named assistant comptroller, Louisville, succeeding Gilbert E. Powell, who retired July 1.

Walter E. Quinn, special engineer, Louis-

Walter E. Quien, special engineer, Louisville, appointed principal assistant engineer, succeeding Gordon H. Boosley, retired. William A. Russell appointed district passenger agent, St. Louis, Mo., succeeding E. V. Groef, division passenger agent, retired. Emmett G. White appointed division freight agent, Mobile, succeeding Hoyt W. Lee, retired. John M. Brock named general agent, Anniston, Ala. Jehn E. Null appointed district freight agent, Lexington, Ky. C. H. Ryon appointed division freight agent, Chattanooga, Tenn., H. G. Edmondson, general agent, Chattanooga, retired. M. E. Sillin and Martin R. Neel named general agents at Omaha, Neb., and New York, respectively.

MILWAUKEE.—P. H. Goolhort, assistant engineer. Tacoma, Wash., appointed principal assistant engineer there, to succeed C. H. Tusler, retired.

MISSOURI PACIFIC.—G. O. Oliver appointed assistant traffic manager, Pittsburgh, Pa. Position of general agent abolished.

W. F. Dunkmon, general accountant, appointed assistant general auditor and his former position abolished.

NEW HAVEN.-Gustaf H. Bodin, assistant cashier, appointed cashier.

NEW YORK CENTRAL—Roymond K. Carroll, district freight sales manager, Watertown, N. Y., named assistant coal sales manager, Cincinnati, Ohio. Raymond V. Morinier, assistant district freight sales manager, Chicago, appointed division freight sales manager, Kankakee, Ill. Joseph B. DiCorlo, representative—freight sales and service, Chicago, named district freight sales manager there. Richard D. Rines, district freight salesman, Baltimore, Md., appointed district freight sales manager, Watertown. John C. Emig, district freight salesman, Memphis, Tenn., named district freight sales manager there.

W. J. Golden appointed district personnelprocedures assistant, New York.

NORFOLK & WESTERN.—Jesse H. Gearhart, assistant to president, Roanoke, Va., retired June 30.

Walter A. Light, general coal freight agent, appointed coal traffic manager—service, succeeding Daniel J. Howe, retired. Jacob Schmuck, Jr., assistant general coal freight agent, succeeds Mr. Light.

Lawrence P. Murray, assistant general freight agent, Roanoke, promoted with the same title as heretofore, succeeding Murshall N. Obenchoin, retired. J. Allen Grosty, assistant to general coal freight agent, Roanoke, named division freight agent, Bluefield, W. Va., succeeding Lawrence N. Helm, retired. William D. Roe, chief clerk to coal traffic manager—rates, succeeds Mr. Grasty. Fronk W. Andersen, Jr., district freight agent, appointed general agent, Cleveland, succeed-

ing Edward J. Schettler, retired. Herry Paul, Jr., commercial agent, Charlotte, N. C., succeeds Mr. Anderson.

PENNSYLVANIA.—A. J. Kuhn appointed auditor of expenditures, Chicago, succeeding B. V. Woiss, retired.

PITTSBURGH & LAKE ERIE—LAKE ERIE & EAST-ERN-PITTSBURGH, CHARTIERS & YOUGHIO-GHENY.—E. F. Schoefer, purchasing agent, Pittsburgh, Pa., appointed manager of purchases and stores at McKees Rocks, Pa. C. E. LeSuer, general storekeeper, appointed assistant manager of purchases and stores, McKees Rocks, Positions of purchasing agent and general storekeeper abolished.

RAILWAY EXPRESS AGENCY.—James L. Dunn appointed household effects traffic specialist at New York.

READING.—Horry B. Gaunt, assistant general manager (RA, June 13, p. 89) appointed general manager, succeeding the late A. N. Jewell. Position of assistant general manager abolished.

D. DeCoro, assistant general claim agent, Philadelphia, Pa., appointed general claim agent there, succeeding H. J. Rohrboch, retired. W. D. Erdmon, Jr. succeeds Mr. De-Cara.

SEABOARD.-1. G. Brooks, assistant general freight agent, Richmond, Va., promoted to general freight agent there, succeeding H. W. Ewell (RA, June 27, p. 71). J. R. Purvis succeeds Mr. Brooks.

SOUTHERN PACIFIC.—William D. Lamprocht, general manager, Pacific Lines, San Francisco, named vice president of system operations. William M. Joskie, chief engineer, Pacific Lines, succeeds Mr. Lamprocht (RA, June 27, p. 71).

UNION PACIFIC.—R. M. Surron, vice president and general auditor, Omaha, Neb., elected vice president and controller, New York (RA, July 4, p. 36), succeeding Lee J. Tracy, retired. E. M. Karrigan, senior assistant general auditor, succeeds Mr. Sutton as general auditor, Omaha.



R. M. Sutton



E. M. Kerrigan UP

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## Supply Trade

Robert B. Bradley, president, International Harvester Co. of Canada, Ltd., has been elected vice president and executive head of the Construction Equipment Division, International Harvester Co., to succeed Harald T. Reishus,

A. H. McArn has joined the Engineering Service Department of A. M. Byers Co. Mr. McArn was previously associated with Union Switch & Signal as a design engineer.

John A. Ferguson has been appointed sales manager of Athey Products Corp., Chicago with responsibility for sales to the heavy contracting, mining, railroad industries and governmental entities in the United States. He was formerly sales manager of Roto-Pak Corp., Chicago. Claude E. Matthews, vice president—parts and service for Athey, has been named to the newly created position of vice president-foreign operations

Kempton Dunn, president of American Brake Shee Co., has announced formation of an Industrial Castings Group composed of four of the company's divisions. Paul L. Mc-Culloch, Jr., has been appointed group executive and elected a vice president of the company. He will have overall responsibility for the operations of the American Manga-nese Steel, Electro-Alloys, Engineered Castings and National Bearing Divisions. William D. Ruddetz, vice president, Electro-Alloys Division, has been named president of that division, succeeding Mr. McCulloch.

Charles Watson has been appointed general foreman, Chicago district, Leonard J. Simons Piggyback Maintenance Co.

Stron-Steel Corp. announced the new location of its Chicago district office at Harris Bank Building, 111 W. Monroe Street, Chi-cago 3, Ill. E. W. Fitzgerold is district man-ager and F. M. Groff is assistant district

John A. McVicker has been elected vice president of Dominion Brake Shoe Co., Montreal, Que., Can., in general charge of railroad products. Howard M. Brownrigg has been elected vice president in charge of steel foundry products.

H. K. Porter Co., Inc. announced the acquisition of Acieries & Ateliers de Construction de Marpent, French producer of steel, railway cars and components and a variety of other industrial products.

Victor C. Lawrence has been appointed general manager of sales for A. M. Byers Co. at Pittsburgh, Pa. Mr. Lawrence was form-erly marketing consultant, Richard I. Enzian has been named product manager of wrought iron and Rulph E. Whittaker, product manager of steel.

Dow Metal Products Co., Division of Dow Chemical Co., has assigned Robert E. Bockrath to a new group responsible for developing aluminum and magnesium applicaquarters at Midland, Mich. Mr. Bockrath was formerly located in Los Angeles as a light-metals technical-service field representative for Dow.

#### OBITUARY

Corl Bucholtx, 77, who retired in June 1944 as president of the Virginian, died last month.



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3	Carman		Engineer
]	Car Inspector		Draftsman
j	Sheet Metal Worker		Signal Maintainer
j	Pipefitter		Engineering Dept.
3	Boilermaker		Mechanical Dept. Off
3	Blacksmith		Official, Supervisor,
j	Apprentice	_	Foreman, Chief Clerk
ī	Lineman		Other (please speci

Name	
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Address	
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Office

specify)



#### Roving Missile Train Tests Continue

Air Force Minuteman missile train tests, which began June 20, continued last week as the second train left for a seven-day run. Shown here is the first test train on initial run from Hill AFB to Echo, Utah, through Weber Canyon over UP track. The train, made up of converted Army cars, is self-sufficient for two weeks away from its base.

Cars include living quarters as well as command and communication equipment, but in this version, no missile cars are included. Meanwhile, a pre-prototype missile-launcher car last week was undergoing shock impact and checkout tests at ACF's Berwick, Pa., plant. ACF and American Machine & Foundry Co. are jointly developing the 85-ft. car.

## Frisco Must Modify CofGa Plan

Frisco's plan for trusteeing its Central of Georgia stock will not be approved by the ICC unless the trust agreement is modified to leave the trustee free to sell the stock to any railroad company offering to purchase it under terms and conditions found just and reasonable by the Commission.

The Commission took that position in a supplemental report in the case wherein it previously found that Frisco violated the Interstate Commerce Act in acquiring control of CofGa, and that maintenance of such control by Frisco was not in the public interest. Frisco was ordered to terminate the violation by disposing of its CofGa stock or transferring such stock to a corporate trustee under terms and conditions approved by the Commission.

Frisco elected to do the latter and submitted to the Commission its plan for transferring the stock to Hanover Bank of New York. The present Commission report passes on that plan, requiring Frisco to modify the trust agreement if it would have it approved "as an alternative to complete divestiture."

As submitted to the Commission, the trust agreement stipulated that the

trustee could not vote the trusteed stock for merger or consolidation of CofGa without prior consent in writing of holders of voting trust certificates representing more than 50% of CofGa shares. Frisco's holdings amount to more than 50%.

The Commission said the agreement would not be approved unless this provision were amended to leave the trustee completely free to sell the stock to any other railroad, as noted above. The Commission's discussion of this requirement noted that a forced sale might result in serious monetary loss to Frisco. It then went on to say:

"Nevertheless, it is also undesirable that the stock be held in a static state by the trustee on Frisco's behalf, thus precluding the merger or other unification of control with another railroad or railroads, even though the same may be in the public interest and in the best interest of Central."

The Commission also required change of another of the proposed agreement's provisions which would have called upon the trustee to elect officers and directors of Central who would use their best efforts to improve service "in cooperation with the Frisco."

## Commissioner Praises NH For 'Educating' Public

Preliminary verified statements and initial witnesses in the ICC inquiry into New Haven operations were generally critical of the road's management (RA, July 4, p. 32). Proceedings took a friendlier turn on the fourth day of the hearings when Commissioner Charles A. Webb questioned NH President George Alpert.

Mr. Webb told Mr. Alpert that he thought the NH president had "rendered a splendid public service in calling the attention of the public to the passenger deficit and educating them with respect to commuter deficit." Mr. Webb added that he agreed with Mr. Alpert that the New Haven had a unique problem.

In reply to an earlier question as to why there had been a rapid turnover of New Haven employees, Mr. Alpert had answered that he, as president, had offered the presidency of the New Haven to 18 different men, all of whom declined the offer.

Mr. Alpert added that, on the basis of more than four years' experience in the position, he thought, "A man would have to be out of his mind to take the job."

Mr. Alpert stressed that the rapid turnover of employees had occurred for the most part before he had been elected to the presidency. "I tried to get some of them back," he added.

Mr. Webb commented, "I am sure you are right that, even with the best management in the railroad industry, you could not pull the New Haven out of its present condition without substantial outside assistance."

Mr. Alpert, in his two-hour testimony, outlined the New Haven's problems. The road needs outside help, Mr. Alpert said, in the amount of \$20 million annually.

The ICC will be given a breakdown of how this sum, if supplied, would be used, Mr. Alpert promised. The main need, Mr. Alpert indicated, is income to meet the net loss, which totalled \$10,800,000 last year. Most of this loss Mr. Alpert blamed on the fact that diminishing freight profits are no longer able to overcome passenger deficits.

Bankruptcy was mentioned in Mr. Alpert's testimony as a most undesirable solution to the road's troubles.

Mr. Alpert indicated that bankruptcy could have only one of two results: either "termination of the business of the New Haven Railroad," or elimination of the passenger deficit by eliminating the service.

Either course would be undesirable for the communities the New Haven serves, Mr. Alpert said.

## U. S. Rails: An Australian View

"Keep your rails," both for longdistance transport and for mass commuter services-but, as to the latter, help the railroads to help themselves.

That's the gist of observations on U.S. transportation by the Hon. N. L. Jude, Minister of Roads, Railways and Local Government in South Australia. Mr. Jude's full statement, requested by Railway Age, follows:

"As I am in the United States primarily to observe your traffic problems with a view to trying to prevent them from occurring in Australia, it might appear somewhat invidious or impertinent for me to pass comment on what I have seen. particularly when Australia is beset with the national curse of breaks of gage throughout the Commonwealth. However, as you have requested me to do so, may I observe in passing that none of your railways should he done away with except in the last resort.

"The need to sustain the peak-

hour commuter system by bulk transit (i.e., rails) working in its own reserves or roadways, becomes more apparent every week. One has only to visit Los Angeles to strengthen this view.

But such systems are privately owned and in the main do not pay. Therefore, it would seem desirable to merge many of them togetherreducing overhead charges, terminal facilities, etc., to the minimum.

"After this is done by the companies concerned, then government authorities may well be asked to lend their support, not necessarily by wav of direct subsidy but by removal of the various taxes which hamstring both owner and customer.

"Freeways are only part of the answer; the fantastic cost of even the access ports to them, let alone the acquisition expenses of the right-ofway, must make many people stop

"As far as long-distance haulage is concerned, power traction has already reached a high state of effi-

ciency, but there is still room for greater improvement in box handling, a shorter time marshalling of consists and more coordination at terminal points. Long-distance hauling by rail must and will stay if it is run efficiently, particularly in countries such as the United States and Australia."

Mr. Jude also told Railway Age that the Australian Commonwealth is using three principal methods to overcome rail-gage breaks:

· Converting some important broad (5 ft, 3-in.) or narrow (3 ft, 6-in.) gage lines to standard (4 ft, 81/2-in.) gage.

• Building-or considering construction of-entirely new standardgage lines to supplement existing broad or narrow gage trackage on some key, heavy-traffic routes

· Increasing use of freight containers. (These, it now appears, may be standardized at a nominal width of 8 ft, height of 81/2 ft, and lengths of 8, 16 and 32 ft, with a possible fourth length of 12 ft.)

## Industrial Holidays Cut RR Forces

The summer doldrums are eating into the revenues of a number of railroads. The result, last week, was a spurt of layoffs.

Out of 17 railroads spot-checked by Railway Age, seven reported that they were trimming their work forces in the face of declining freight volume, actual or anticipated. The growing trend toward long industrial holidays was the principal reason given for the lavoffs.

Biggest reduction was reported by the Pennsylvania, which blamed "a steady decline in freight volume, accelerating during the past 30 days," for the furloughing of 2,200 employees system-wide. The PRR layoffs are for an indefinite period.

"This is a most unfortunate development which we deeply regret," said James P. Newell, operations vice president. "But we can no longer defer adjusting our expenditures to the level of business and the revenues of the company, in the long-term interests of the railroad, its employees and owners." He added that industrial holidays mean that "in addition to the decline in freight volume already experienced there will be a still further loss of business in the ensuing months."

New Haven has furloughed 890 employees for the month of July. A spokesman noted that the trend is toward "more and longer" industrial holidays. Prior to the layoffs, the New Haven made a point of telling union leaders that the reductions had nothing to do with the current round of wage increases.

This was the picture elsewhere:

· Seaboard Air Line has "temporarily" furloughed about 150 employees out of a total force of 2,900 in its mechanical department "due to seasonal conditions and some curtailment in work programs."

· Norfolk & Western laid off about 300 shopmen June 25 for the duration of the coal miners' holiday.

· New York Central has furloughed "some" employees, principally because of the miners' holiday.

· Baltimore & Ohio has experienced a "seasonal reduction in forces, chiefly in the transportation department."

• Wabash is furloughing about 500 employees system-wide. Decatur, Ill., company shops will be closed July 11 until an improvement in business conditions justifies reopening.

· No layoffs were reported by Illinois Central, Jersey Central, Lacka-

wanna, Great Northern, C&NW, Mo-Pac. Soo Line and Chesapeake & Ohio. Santa Fe said it hasn't made any force reductions other than those occasioned by the normal ebb and flow of traffic. CB&Q not only isn't laying off any employees; it's beefing up its shop forces, which haven't fully recovered from the effect of last year's steel strike.

#### Dividends Declared

AKRON, CANTON & YOUNGSTOWN.-40¢, pay-ble July 15 to holders of record July 1.

ALGOMA CENTRAL & HUDSON BAY.-5% pre-ferred 73¢, quarterly, payable Sept. 1 to holders of record Aug. 15.

ATCHISON, TOPEKA & SANTA FE.-30¢, quar terly, payable July 29.

CANADA SOUTHERN.—\$1.50, semiannual, pay-ble Aug. 1 to holders of record July 15.

CANADIAN PACIFIC.—75¢, semiannual ble Aug. 1 to holders of record June 24.

CAROLINA, CLINCHFIELD & OHIO.—\$1.25, quarterly, payable July 20 to holders of record July 8.

CLEVELAND, CINCINNATI, CHICAGO & ST.
LOUIS.—common, \$5, semiannual; \$76 preferred, \$1.25, quarterly, both payable July 31 to holders of record July 21.

COLORADO & SOUTHERN.-4% non-cumulative 1st preferred, \$2, quarterly, payable July 21 to holders of record July 6.

FORT WAYNE & JACKSON.—51/2% preferred, \$1.75, semiannual, payable Sept. 2 to holders of record Aug. 19.

MAHONING COAL.-common, \$7.50; 5% pre-ferred, \$1.25, semiannual, both pold July 1 to halders of record June 27.

# You Ought To Know...

Direct piggyback service between Chicago, Minneapolis-St. Paul and Minot, N. D., will be offered by Soo Line beginning about Aug. 1. It starts as a Plan II operation, but Soo says it's prepared to establish service under any of the other TOFC plans to meet the needs of Minot area shippers. Westbound schedules call for delivery in Minot second morning out of Chicago. Eastbound schedules are comparable.

Commercial development of 78.9 acres of the old Camp Shanks property at Orangeburg, N. Y., 23 miles—from New York City, is planned by the New York Central. The facility will be called the Metropolitan Distribution Center. NYC said "extensive market studies show that this location offers prime warehousing and transportation facilities for easy access to the world's greatest concentration of buying power."

Canada has extended from July 31 to April 30, 1961, its federal subsidy for freight rate reductions to and from western provinces, at an authorized expenditure of \$15 million. The government expects to receive, within that nine-month period, the report of the current Royal Commission which is studying rate problems.

Revolving white beacon light is being used by the Northern Pacific for a maintainers' call light on its CTC housings at the ends of sidings. Low afternoon sun made it almost impossible to tell if the conventional-type light bulb was lighted. Mounted on a pipe mast above the housing roof, the revolving beacon can easily be seen from the nearby highway. The dispatcher turns on the beacon by remote control, when he desires to talk to the signal maintainer or the supervisor.

Forty years of railroading only whetted Leonard C. Reynolds' appetite for more of the same. Mr. Reynolds, who retired as C&NW division superintendent at St. Paul, Minn., in 1957 after 40 years' service, has just completed two years of duty in Saigon as technical advisor to the Viet-Nam Railroad System. Now home on leave, he will return to the Far East for another two years of railroading, Viet-Nam style.

The Helen Thatcher White Foundation, prospective buyer of D&R-GW's historic, narrow-gage Durango-Silverton branch, wants to be relieved of its agreement to purchase the line. Local opposition to Rio Grande's abandonment proceedings prompted the foundation to request indefinite suspension of the agreed-upon sale. If ICC approved, the foundation would have operated the line as a tourist attraction. (RA, Dec. 14, p. 42).

#### **Concrete Ties for UAR?**

Two officers of the American Concrete Crosstie Corp. are in Cairo to discuss a contract for supplying the United Arab Republic with 8,000,000 prestressed concrete crossties over a 15-year period.

The Tampa, Fla., firm was invited to bid for the contract by Dr. Mustafa Khalil, UAR Minister of Communications. Douglas P. Cone, American Crosstie Corp. president, and John P. Roebuck, Jr., vice president, arrived in Cairo last week to begin investigating sources of raw materials and plant construction costs. A German firm is also reported to be seeking the UAR contract.

A spokesman for the U. S. company, which mass produces an AAR-developed concrete crosstie now being extensively tested on the Seaboard Air Line and the Atlantic Coast Line, said a number of other countries have shown interest in the U. S. tie. These include Argentina, Australia, Belgium, Britain, Canada, India, Israel, Japan, Liberia, Mexico, The Netherlands, Norway, Pakistan, Portuguese East Africa, South Africa, Southern Rhodesia, Spain and Taiwan.

Boston & Maine will acquire (probably late this year) a Univac Solid-State 90 computer which will replace two Univac 120's and certain other standard tabulating machines. Future plans for the system include application of certain data processing procedures which will tie in with a Teletype car reporting network now being installed.

Terminology reflects responsibility on still another railroad—the M&-StL. M&StL's traffic department has become its sales department, as one of the final steps in implementing a marketing program which began last autumn. Comments J. R. Sullivan, vice president-marketing: "We've forgotten about old railroad solicitation techniques and have replaced them with modern marketing procedures."

Rate reductions of up to 60% on express shipments of textiles and related dry goods products became effective July 5. The ICC allowed the Railway Express rates to stand despite the protests of motor carriers and forwarders.

Diesel engine standby heater failure warning system alerts personnel in remote areas where locomotives are temporarily parked overnight if engine water temperature falls below 100 deg. F or if commercial power fails. At 27 locations the Northern Pacific parks diesel locomotives overnight or over weekends. These engines were formerly parked in heated buildings with an attendant. Engine water heaters have been installed, which along with an alarm system operate off commercial power. If the power fails or engine water temperature falls, a bell rings at the locomotive site and at a nearby depot, engine house or railroad man's home. The person alerted, if not a mechanical department employee concerned with locomotives, calls someone who goes to the engine to ascertain the trouble and remedy it.

Abandonment of the 57-mile Tallulah Falls Railway, a mountain line which runs from Cornelia, Ga., to Franklin, N. C., has been recommended by an ICC examiner.

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SECTION

Railway Age, 30 Church St., New York 7, N. Y.

# Lowest Costs vs. Average Costs

If a farmer wants to win prizes on his livestock at the county fair, he doesn't enter the 'average' animals from his herd. He puts on display the best he has.

When a greengrocer has strawberries to sell, you won't find just 'average' berries at the top of the boxes. The upper tier usually consists of the best fruit on hand.

Instance after instance like these could be cited —where, with hardly any exception, the competitor does his competing with his most attractive merchandise. But in the transportation business, it's different. When railroads compete, too often it is only their average performance—rather than the best of which they're capable—that they are allowed to use in doing their competing. Let's have a look at how and why this happens—

When a new superhighway opens up (perhaps cutting truck time and labor costs in half), practically all the through traffic immediately deserts the older and slower roads. Regulated truck operations immediately increase their profits at existing rates—but exempt and private carriers, limited only by their reduced operating costs, quickly undercut these rates. They either take over the bulk of the business, or the common carrier truck rates have to come down, and fast.

In short: Highway transportation, being largely unregulated, always competes with its newest, sharpest and most economical weapons. The same is true of barge operations.

Now how do railroads go about meeting the competitive onslaught of a vastly improved parallel highway? As soon as they find out how much tonnage of principal commodities the new highway is diverting from them, they set about to ascertain how much they must (and how far they can) reduce their rates to restore their competitive position. But when railroads seek to make competitive rates they are seldom permitted by the regulators to go below the average regional out-of-pocket railroad costs, as computed by ICC cost analysts.

It is sound economics for railroads to reduce their rates to a shade above their actual variable costs (not regional average costs), if necessary to hold or regain competitive tonnage. Specifically, suppose there is a modern highway and a well-located railroad between A and B. The trucks on this highway (since they are largely

unregulated) can and do, if necessary, reduce their competitive charges down to their relatively low costs of operation on this particular highway. As a general rule, however, the "floor" under railroad rates will be held to average regional railroad costs—which are probably a great deal higher than the costs of transportation on the particular stretch of railroad in question.

(Sometimes individual railroads may be permitted to make point-to-point rates at a level below regional railroad average costs, but such permission cannot be relied on).

Railroads can challenge rates of common carrier trucks, suspected of being below average truck costs, but such challenges have little effective value, even if accepted by the ICC—since the bulk of truck traffic is not regulated.

What this situation all adds up to is that, usually, railroads have to do their competing on the evidence of their average past performance—whereas truck operators can reflect instantly in their charges the economy of improved highways and improved equipment. In many situations the railroad may still be the more economical carrier, but be denied the right to reflect its low costs in specific competitive rate situations.

It isn't just giving another twist to the crying towel to draw attention to this serious competitive disability of the railroads-because there is a way out. That way is the development by railroads of convincing cost analyses for specific sections of line, and the repeated use of such evidence in competitive rate cases. The ICC's cost people have done a fine job of filling a vacuum by their extensive work in railroad cost-findingbut they are not the only people who can, or should, do this kind of work. There is a great deal to be said for increasing emphasis on potential or capacity costs, rather than historic costsas recently urged by the Santa Fe's President Marsh in his address to railway accounting officers (RA, June 20, p. 13).

To compete economically and fairly, the railroads must be credited with the actual economy they can demonstrate—not the much less impressive showing their average costs make, by including all operations over a wide area.

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